City of
ALEXANDRIA, VIRGINIA

INFORMATION
TECHNOLOGY PLAN

APPROVED

FY 2005 - FY 2010

PROJECTS INDEX

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Information Technology Plan Preface

The City of Alexandria's Information Technology Plan is the framework within which the City's annual information technology work is conducted. As the City's business needs and the technology environment changes, so too does the focus of the IT Plan. This FY 2005 - FY 2010 IT Plan reflects:

- Funding of $18 million in City funds, and $8.6 million in outside funds.

- Continued growth of e-government services in helping to improve accountability of government and to make conducting business with the City more convenient for residents and businesses;

- Redesign of the City's web site to make information and services easier to find and more accessible;

- Upgrade of the City's Institutional Network (I-Net) to expand capability, capacity and to protect its reliability for both City government and the City's public school system;

- Replacement of the City's public safety and general radio communications systems;

- Protecting the City's critical information technology infrastructure through planning for emergency preparedness and disaster recovery;

- Strengthening the security of the City's IT systems amidst increasingly sophisticated virus writers and others who seek to do harm to computer systems connected to the Internet;

- Determining how telecommunications technologies can be applied to construct a unified communications structure for the City, especially in the area of emergency communications; and

- Growing the application of project management processes for information technology projects to help complete projects on time, at or under budget and at a high quality.

These elements and projects will be key this year to the improvements to City services that are the foundation of all that the Information Technology Plan supports.

Information Technology Goals and Principles

The City's goals and principles for the application and management of information technology (IT) to the City's business and for the related organizations that manage and deliver this service, provide the framework for managing and delivering these key services.

City Technology Goals

The City's goals for the use of IT are to:

- Provide convenient electronic access to information and related services to residents, businesses and City staff.

- Deliver timely and effective responses to customer requirements.

- Guarantee a reliable computer infrastructure, including data communications.

- Effectively manage the City's information and technology assets.

- Ensure reliable connections between State government data services and systems and City systems to facilitate City and State operations.

- Seek partnerships with appropriate government entities, non-profit organizations and private firms in providing the most effective and efficient delivery of City government information services.

- Seek, where practical, to implement joint IT projects with the City government, the Alexandria Library and the Alexandria City Public Schools (ACPS).

- To ensure the reliable delivery of telephone and voice messaging services, and to appropriately take advantage of the convergence of voice and data services through digital technologies.

Goals of the Information Technology Services Department

The goals of the City's Information Technology Services Department (ITS) are:

- To provide information service to City departments that is reliable, credible and accessible in a timely manner, and to assess satisfaction with this service on an on-going basis.

- To ensure that the City's IT human resources are appropriately managed and trained.

- To provide timely response to requests for service.

- To improve City management and operational capabilities through the use of information systems by providing City management and legislative leadership with reliable, well-informed information about the cost-effective application of technology to the City's business processes.

- To safeguard the City's physical computer system hardware and to safeguard access to the City's electronically stored data.

- To exercise good stewardship in the development of information technology systems projects through the application of applicable industry standard project management policies and practices.

Organization of City Information Technology Resources
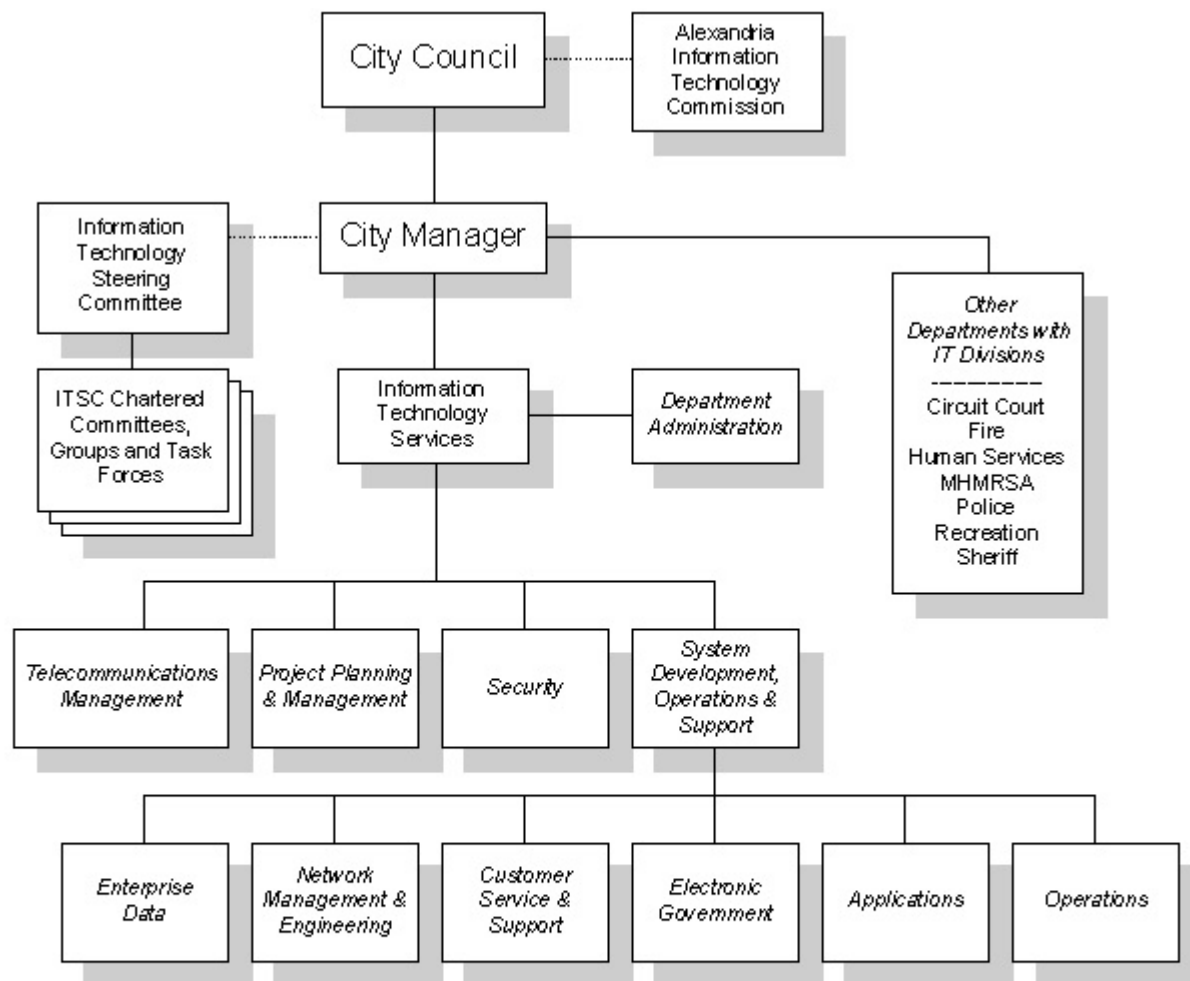
Alexandria Information Technology Commission

The Commission, established in 1997 through Ordinance 3953, is an advisory group to the Alexandria City Council. The Commission's purpose is to make recommendations to and advise the City government in the formulation and implementation of information and telecommunications policy, and promote resident participation in the formulation of such policy. The Commission also annually reviews the City Manager's proposed information technology plan.

Information Technologies Steering Committee and Strategic Principles

The Information Technologies Steering Committee (ITSC), composed of representatives from the City's top-level management and user agencies, was established in 1987 to advise the City Manager on the planning and prioritization of City information technology systems and services, and to coordinate all major computer hardware and software acquisitions. The ITSC's recommendations for the

replacement and upgrading of the City's information technology infrastructure have been guided by the following Strategic Principles:

- Give priority to addressing urgent public safety and public health needs; meeting legal requirements; maintaining vital financial processes; exploiting available non-City resources for funding; and attaining quantifiable returns on investment;

- Use outside contractors to meet applications and maintenance needs where appropriate;

- Continue to exploit new technology to deliver services cost effectively and to improve public access to City services and information;

- Reduce the need for training and facilitate rapid deployment of new systems by striving to employ integrated user interfaces for computer applications; and

- Where possible, encourage the purchase of commercial-off-the-shelf (COTS) software for new business applications, with minimal customization.

Chartered Committees, Groups and Task Forces of the ITSC

To more broadly engage City staff in the planning and implementation of IT initiatives, the ITSC created a number of subsidiary groups through a chartering process. The charter requires each group to meet regularly, take and distribute notes, in many cases prepare budget submissions for their areas of responsibility and to monitor appropriation expenditures that are within their charter. In FY 2003, the *Information Technology Security Subcommittee* (ITSS) was formed at the request of the ITSC and operates as a subcommittee of the ITSC to support information technology security decision making throughout the City. The goal of the ITSS is to foster IT security throughout the City government. In FY 2004, the *Document Imaging Subcommittee* of the ITSC was established to provide guidance in implementing the various document imaging projects throughout the City. A full list of these groups and further details on each group is included in Appendix B, page 121.

Information Technology Services Department

The ITS department is responsible for the operation of the City's information technology services, including IT infrastructure in the City. The City's ITS organization must provide ongoing support for client/server and web application processing in a sophisticated and secure network environment, replace legacy systems with new enterprise-wide applications designed to operate in this environment, and provide an effective, flexible, responsive and secure structure to manage change and address the City's enterprise-wide information needs. The ITS department includes five groups that provide these services:

Administration
This group includes:

- *Clerical Administration* - Includes office management, billing, meeting and schedule coordination, simple purchase management, reception, and personnel processing.

- *Finance* - Includes complex purchase management, budgeting, and financial management.

Project Planning and Management - Responsible for enterprise-wide planning, management and assessment of internal and external IT projects.

System Development, Operations and Support - Responsible for design, development, operation, maintenance, and support of the City's infrastructure, applications and communications capabilities.

This group includes:

- *Applications Development* - Includes the management, maintenance and development of enterprise applications and dedicated business systems.

- *Customer Service and Support* - Includes Help Desk, training and equipment deployment services.

- *Electronic Government* - Includes the management of the City's web site and intranet development and support of their technical architecture, as well as electronic publishing.

- *Enterprise Data* -Includes Database Administration. Responsible for enterprise-wide data standardization, integration and information exchange.

- *Network Management* - Responsible for email system management and enterprise system management. Includes the City's Security function, responsible for the formulation, implementation, and assessment of enterprise-wide security policy.

- *Operations* - Includes I-Net management, network operations center, and construction, moves and relocation coordination.

Telecommunications Systems Management - This function is responsible for telecommunications system planning and day-to-day operations.

Cross-Divisional Groups Within Information Technology Services

While each functional area of ITS has a specific area of responsibility, ITS staff from each division work cooperatively on several internal groups for planning purposes, and to ensure cross-divisional coordination on important projects.

Following the ITS organizational assessment of FY 2003, the department formed the Technology Advisory Group (TAG). The TAG, which meets once a month, consists of staff representatives from all ITS divisions and is responsible for reviewing and analyzing technological change as it evolves in the marketplace, and assessing its relevance to current and future City requirements. Outside vendors are invited to provide overviews of new technology and product demonstrations. Following one vendor presentation, staff became aware of an alternative that provides a reliable, fast and less expensive option for network connectivity. As a result, a laser signaling system, which is installed between the City's Courthouse and the rooftop of the Probation and Parole office, has been implemented to provide network access at one fourth the cost of traditional underground cable fiber service.   In addition, Probation and Parole staff have reported favorably on the quality of the connection.

The ITS Policy and Review Committee, also formed following the ITS organizational assessment, supports enterprise architecture technology planning and security policy formulation and assessment in its monthly meetings. The committee, composed of ITS management and division chiefs, is responsible for the following:

- support and planning for initiatives identified in the Information Technology Plan;

- formulation and enforcement of IT policies;

- formulation and enforcement of security policies;

- review, approval and enforcement of conformance to enterprise-wide standards for integration and information exchange;

- review and approval of project tasking, scheduling, staffing and cost;

- definition and enforcement of standardized project planning and project management procedures; and

- oversight of project performance, schedule conformance, staffing and cost.

Other Departments With Information Technology Divisions or IT Staff Support

In addition to ITS, there are seven City departments and agencies that have a division which also provides information technology services. These services are coordinated with ITS staff.

- Circuit Court - The Alexandria Justice Information System (AJIS) Coordinator, with a staff of 5, manages IT services for the Courthouse and for customers of the AJIS system. Services provided also includes support for over 250 computer workstations and over 500 users.

- Fire - The department's two IT staff, along with two other Fire staff members, coordinate with ITS staff to support the Code Enforcement building permits system, manages the Fire computer aided dispatch system and other Fire-specific computer systems. Fire IT staff also support over 150 computer workstations. An overall IT coordinator position is being added to the Fire Department in FY 2005.

- Human Services - The Department of Human Services (DHS) IT Coordinator, with a staff of 5, manages IT services for the DHS Mt. Vernon Avenue facility, the Job*Link* employment center, the Community Digital Divide Initiative, the Mentor Home, the Adult Day Health Care Center and for other departments that use DHS systems. The DHS IT Coordinator acts as a liaison with the Virginia Department of Aging, Virginia Naturalization and Immigration Services, The Northern Virginia Regional Commission, and the Virginia Department of Social Services with regard to their information systems operations and installation. Human Services staff manage over 350 computer workstations used by staff and residents.

- Mental Health/Mental Retardation/Substance Abuse - The MH/MR/SA Department's Research and Evaluation Director and staff manage IT services for the department. Two full time staff manage the IT network and hardware services and two full time staff manage the specialized medical records software and database for the numerous locations including the Mental Health Center on Saint Asaph Street, Substance Abuse on Mill Road, Vocational Services on Colvin Street, the Club House on Patrick Street and over twenty other locations at Group Homes, the Detention Center and the Health Department. These staff manage approximately 350 computer workstations.

- Police Department - The Technology Services Division manages the department's IT services. Major systems include the City's computer aided dispatching (CAD) and the records management system (CRIMES). The Police LAN, over 200 desktop computers, over 200 mobile computers, and the Crime Analysis Section are also supported by 9 IT staff and 2 sworn officers.

- Recreation - The Information Technology Division of the Department of Recreation and Cultural Activities supports its internal IT work through 2 full-time positions and a portion of a third full-time position. These positions provide first line support for all of the City's recreation facilities and for recreation administration. The Recreation staff manage over 140 computer workstations at 15 different sites and also provide network support, server administration, troubleshooting for recreation systems and email, web site maintenance and technical support to the department's 4 public computer labs.

- Office of the Sheriff - The Technology and Information Management Division (TIM) within the Office of the Sheriff has a staff of four. The team leads IT initiatives related to the Office of the Sheriff, coordinates activities with the City's Information Technology Department, and works with other City agencies, local government, and state agencies on such initiatives. Major systems supported by TIM include: the Public Safety Center Security System, which manages all access to, from and within the Public Safety Center and its perimeter; the Alexandria Justice Information System (AJIS) for booking, jail management, criminal and traffic case information; the Livescan System, which captures and downloads scanned finger and palm prints directly to the State and Regional database; the Local Inmate Data System (LIDS) which captures and reports real time inmate status to state and federal governments; and the Video Arraignment System, that allows prisoners to appear via video before a judge for arraignment. TIM administers first level help desk support and training for standard City applications for 205 users utilizing 113 workstations, various printers (networked and local), and other computer peripherals.

Information Technology Initiatives

Electronic Government

As electronic media have become popular and useful as a means of providing services, the City of Alexandria's Electronic Government (E-Government) project is providing better customer service in the delivery of government services and information. As electronic technology continues to evolve, so do the methods to develop e-government services to take advantage of these technologies to produce efficiencies in traditional business practices.

E-Government services (also known as e-services) within the City of Alexandria are provided through a variety of electronic methods to City constituent groups (residents, employees, businesses and other governmental entities) to speed up and/or improve traditional business interactions with the City. "On-line, not in-line" has been used to explain the essence of what is meant by e-government.

Most people tend to think of e-government as strictly web-based services, but other technologies are being used to provide e-government services. As the City's web presence grew, so did the recognition of the 'digital divide,' i.e., that these conveniences were only available to those who had computer skills and access to the Internet. A conscious decision was made to begin offering e-government services through a variety of electronic methods to help ensure that few individuals remain on the other side of the digital divide. These methods include the Internet, interactive voice response (telephone) systems, computer kiosks, wireless services, and electronic mail.

E-Government Guiding Principles

The City of Alexandria's e-government services guiding principles are used to develop new services. Prospective e-government initiatives are reviewed for conformance to the principles to ensure that services are developed that are consistent with the needs of our customers, are economical to deploy and maintain, are secure and have value.

New E-Government services:

- Must ensure privacy and security.
- Must be simple to manage.
- Must avoid stand-alone solutions: solutions that do not integrate with the City's e-government structure.
- Should be customer-focused (resident, business, employee, other government).
- Should be functionally organized.
- Should focus on value.
- Should use available methods to bridge the digital divide.

The greatest number of City of Alexandria e-government services are offered through the City's web site. Despite all these service offerings, the web site is still in an early phase of its evolution. As the figure below shows, the web site will continue to evolve to incorporate and accommodate a greater level of constituent interaction.

City of Alexandria
E-Government Services Evolution

V A L U E (vertical axis)

FUTURE

INTEGRATE
Support integrated application databases - ease of maintenance and standardization

Examples: Enabling information sharing across traditional barriers, e.g., using GIS system data as standard for all addresses in City

2003

TRANSACT
Allow for reservation and purchase of services. E-government activities are integrated into existing business processes

Examples: Historic Alexandria On-Line Shop, Tracking Permit status via City website

2000

INTERACT
Allow for information search based on unique criteria

Examples: Real Estate Assessment Inquiry - user enters search criteria, and retrieves desired result set

1996

PUBLISH
Provides static information Inquiry Only

Examples: Inquiry Pages on City's website - most pages are inquiry-only

COMPLEXITY (horizontal axis)

The City's web site is currently at a critical juncture in its evolution. Up to this point in time, services offered via the web site have been informational only; in other words, residents and others have only been able to retrieve information from the site. This capability has recently evolved to allow users to request specific information based on defined search criteria, for example real estate assessment information on a specific property in the City. To date, however, the web site has not accommodated the submission of information from a user of the web site *into* a City production application system. This seemingly simple transaction must be carefully planned and executed, as nothing less than the integrity of the City's production application systems and the security of the City's network are at stake.

Allowing users of the City's web site to submit data directly to the City's application systems and pay for the resultant products and services (to apply and pay for a simple permit using the City's permitting application, or reserve and pay for a recreation class using the City's recreation class system, for example) is an important 'next step' in the evolution of services that meet classic e-government service goals: providing convenience, ease of use and time-savings for constituent groups <u>and</u> the department which is responsible for delivering and managing the service. What can be done by the resident online via the Internet shortens the line at the counter, and thus the wait time of others in line for different purposes. Please see the Web Site Enhancements project on page 45 for additional information regarding the City's web site.

Digital Divide/Digital Opportunities

Not every resident has access to the Internet or other electronic data services from their home, nor is equally skilled in using these technologies. The City continues to develop opportunities for those residents to participate in the digital economy and digital community, thus bridging the 'digital divide.' These include:

<u>Technology Access Policies</u> -

- The City of Alexandria provides information through a variety of channels which include: (1) City school system classroom, media center and computer center access, as well as technology training programs incorporated into the school curriculum, (2) City library on-line resources and database access provided at City libraries; (3) Recreation Center computer training and access; (4) Housing Authority computer training and Internet access; and (5) non-profit and faith-community computer training and access.

<u>Wireless, High-Speed and Dial Up Internet Access</u> -

- The Department of Human Services' *Job*Link 'Community Digital Divide Initiative' was developed to bridge the digital divide, specifically to help under-served communities gain low or no cost access to computers, the Internet, and on-line training.   *Job*Link serves as the hub of an on-line learning program, and is increasing its ability to broadcast interactive learning and real-time training activities on a wide range of subjects. See <u>www.cddi.us/cddi/cddi-03/about.html</u> for more information.

Public and Private Sector Sponsored Facilities -

- The Alexandria Library has become a primary local resource in helping to bridge the gap in the so called "digital divide." The Library now has 49 Internet public access terminals, including one in Spanish, in each branch, which are in use all day every day on a first-come, first-served basis. Due to high demand, Internet-only terminals are limited to one hour per day per patron use.

- The Alexandria Library provides access to more than 30 electronic reference works, databases of searchable articles from thousands of periodicals, and holdings of the Alexandria Library and 30,000 other libraries in more than 100 countries. Printouts are available for a nominal fee per page.

- With a valid library card patrons have round-the-clock access to many of the above electronic reference services through the Library's web site at www.alexandria.lib.va.us.

- The Alexandria Redevelopment Housing Authority (ARHA), the City's public housing agency, provides several computers connected to the Internet that can be used by residents.

- The ARHA also has computers donated by NVCC that are used by senior citizens who are ARHA residents.

- The City of Alexandria, Department of Human Services, *Job*Link program offers City residents free access to a comprehensive Resource Center with the hardware and software needed to seek employment. Specifically, customers have access to computers, fax machines and copiers. Two of the computers are fitted with adaptive equipment to accommodate customers with disabilities. The computers on-site have Internet connections, typing tutors, job readiness assessment programs and software training programs installed. This service is offered on-site in the City at *Job*Link's new location, 2914 Business Center Drive in Alexandria.

Education and Training -

- The Alexandria Library also provides computer terminals at all branch libraries with word processing software available for public use, and instruction on using the Internet.

- The Burke Branch library has a computer lab with 14 public access computers. Instruction on accessing and using the Internet is offered as well as other computer training courses.

- The Department of Recreation, Parks and Cultural Activities has computer labs available at several of its recreation centers for use by all ages. Participants can browse the Internet, complete homework and learn introductory computer skills. Classes for senior citizens are also available.

- *Job*Link has developed partnerships with twenty-five (25) local, public and private agencies to form the Community Digital Divide Consortium (CDDC). These partnerships allow *Job*Link to increase its ability to: (1) assist in closing the technology gap by developing computer and information literacy, (2) expand its outreach and service delivery, and (3) fulfill and exceed its short-term and long-term workforce development requirements. The long-range plan is to build additional training courses into this network as well as to expand service and support to other regional, national and international workforce programs.

Enterprise Architecture

The ITS Department has been working to establish an enterprise architecture plan. An enterprise architecture will enable the City to establish a standard computing environment to provide for seamless integration of City data, applications data and information and allow for secure, but open, access to City information by our internal and external customers. This would enable us to attain the following specific objectives:

- Provide information services to City departments that are reliable, accurate, and accessible in a timely manner, and assess satisfaction with IT services on an ongoing basis;

- Ensure that the City's IT resources are managed properly;

- Provide timely responses to requests for services;

- Improve City management and operational capabilities through the use of information systems by providing reliable, accurate information on cost-effective applications of technology to City business processes;

- Safeguard access to the City's electronically stored data;

- Enable the use of effective project management policies and practices in the development and implementation of IT systems;

- Ensure that all hardware and software acquired by the City supports the current and future business needs of the City and that these acquisitions can be supported properly and economically.

Emergency Preparedness/Disaster Recovery

The events of September 11, 2001 have focused attention on the importance of preparing the City and its information technology (IT) infrastructure on emergency preparedness and disaster recovery. The City is taking a number of steps to address this need. Among them are:

- Improving information technology operations at the City's Emergency Operations Center (EOC) [see project on page 75];

- The ITS Department has completed a City IT core services disaster recovery plan, which included an assessment of recovery strategies, and the exploration of the establishment of standby IT operations in an alternate location (a hot site). The planning component of this project has been completed, and a new project to fund the implementation of some of the disaster recovery recommendations is included in the FY 2005 IT Plan. Monies requested in this project are to fund the City's share of a study to determine the cost and feasibility of a regional information technology alternative emergency site location; and to examine the feasibility of regional IT mutual aid agreements when disasters strike.

These regional issues and other related issues are discussed through MetroCIO, which is a forum for Washington, DC area local and regional governmental organization CIO's and IT directors. See www.metrocio.org.

Security Initiatives

The City, like all organizations connected to the Internet, faces an evolving array of information security threats, which include viruses and methods of hacking. Hackers now use "blended" attacks that are very effective at circumventing traditional perimeter security devices such as firewalls. In response, the City has created a full-time Information Security Officer (ISO) within the ITS department who is responsible for formulation, implementation, and assessment of enterprise-wide security policy. The ISO works with the Information Technology Security Subcommittee to monitor and direct the activities of the information security program.

The widespread use of firewalls on Internet connections as protection against unauthorized intrusion has encouraged hackers to seek methods to circumvent them, with many successes. It is now widely accepted by information security professionals that a firewall alone is insufficient protection for a computer network. The City's information security program function is evaluating new methodologies and examining their place in the City's information technology infrastructure. In addition, the ISO is responsible for developing and updating policies and procedures that will assist City employees with their efforts to make Alexandria's information more secure. Implementing new security technologies, policies, and methodologies is a continual process.   Examples of improvements that staff are currently evaluating include:

- Centralized Logging - Using a single, highly secure server to hold the system logs of file, print, and application servers. Hackers modify logs to cover their tracks. Centralized logging makes it hard for the activities of a hacker to be deleted.

- Client Firewalls - These software firewalls reside on workstation and laptop computers and add an additional layer of protection within the perimeter of the Internet firewall.

- Client-Based Intrusion Detection Systems - These systems detect and report patterns of electronic communication that are known to be performed by hackers.

- Disaster Recovery Project - The ITS department recently updated its Disaster Recovery Plan. The plan, which is maintained by the ITS Security Officer, will assist the department in recovering from an incident that damages, or restricts access to computer systems.

- User Education - Information security knowledge throughout the organization is the best defense against unauthorized computer use. In the near future, City employees will receive required training on the fundamentals of safe and secure computer use that is simple to understand and follow.

Teleworking/Telecommuting

On October 24, 2000, the City Council passed Resolution 1981 which:

- encourages all employers within the City to take steps in creating or expanding the use of teleworking for their employees.

- directs that the City will increase its efforts to assist City businesses in teleworking program development through start-up funding and no-cost consulting; and

- directs that the City will study and develop a telework policy for its employees.

The City Manager has charged an interdepartmental group with developing a proposed formal teleworking program, establishing its parameters, policies and procedures, as well as developing a plan to implement teleworking within the City government organization. The group is chaired by the Director of the Personnel Department, and includes staff from the ITS department as well as the Transit Office of the Department of Transportation and Environmental Services. The interdepartmental group is expected to make its recommendations in 2004.

Document Imaging

Document imaging is a process used to transform printed text, pictures and figures into electronic files, allowing quick and easy electronic access to imaged documents. The imaged electronic files are then stored and can be accessed and viewed by many, sent through email, or printed.

Many City departments and agencies have expressed a need for electronic storage and retrieval of documents to provide a more rapid and accurate access to City documents. Departments are interested in storing a variety of internal and external correspondence and engineering drawings and large maps to help reduce physical storage space requirements and to improve access. Other benefits of document imaging include time savings, accuracy, enhanced security and improved public service.

In FY 2002, City staff worked with a contractor to gather imaging requirements from key City departments and to establish standards prior to issuing an RFP for these services. In FY 2003, the City issued the RFP, selected a vendor and has begun implementing an imaging solution. The first phase of the imaging project will address needs in the Fire Department's Code Enforcement Division.   To assist in assessing City imaging project priorities, in FY 2004 the Information Technology Steering Committee authorized the creation of a Document Imaging subcommittee. Staff from the Police Department, Sheriff's Office, Personnel Services and Transportation and Environmental Services (T&ES) and Information Technology Services serve on the Document Imaging subcommittee. See Document Management and Imaging Infrastructure on page 55 for additional information.

ITS Department Performance

ITS has continued to seek more effective methods of determining how well City IT service is being delivered. For the past three fiscal years ITS has asked George Mason University's [GMU] Institute of Public Policy to assist with measuring the performance of ITS as that service is viewed by departmental and agency customers. GMU has conducted three electronic surveys, asking all City government staff members that have City email accounts to rate ITS performance. The surveys included two kinds of questions: (a) those which sought a response on a five point scale - with one being unsatisfactory and five being very satisfied, and (b) open ended questions in which the respondent had an opportunity to make statements. All materials were treated confidentially by GMU staff so that ITS staff did not know individual responses, helping to encourage respondents to be candid in their answers. After each survey, GMU staff individually contacted those departmental staff who indicated specific problems or concerns so that GMU staff could better understand the nature of the problem and the respondents had an opportunity to make statements in confidence that they may have been reluctant to commit to writing.

In the first year the survey covered the Help Desk, Computer Training functions and general ITS issues. In the second year of the survey, questions regarding the performance of Network and Security Services, Email and Lotus Notes services, CityNet and Applications services and Electronic Publishing Office services were covered. In the most recent survey completed, questions on Web Team services and the Telecommunications function were added (the Telecommunications function was transferred from the General Services Department to ITS in FY 2003). Where categories of questions were asked in all years, every attempt was made to keep the text of the question substantially unchanged so that a more accurate measure of year-to-year change could be evaluated. It is the City's intention to continue to conduct these surveys, building on the accumulation of data to develop a much clearer picture of the performance of ITS in delivering services in the context of each fiscal year's opportunities and constraints. In each year approximately 450 usable responses were received, representing approximately a 30 percent response rate, which is considered to be very good.

On a five-point scale, three, the mid-point, is considered by the survey profession, to be a "natural indifference" point; i.e. if the respondent does NOT have a strong opinion, then they will tend to choose the mid-point. This means that if, on average, a service is rated below three, there is a problem with its delivery, while if the average is above three, then customers are generally satisfied. This is, however, not to say that when customers are generally satisfied that improvements aren't warranted or changes should not be considered, only that the service, from the customer's point of view across the organization, is meeting expectations.

- In FY 2002 the overall average response to 60 questions in nine categories was 3.77.

- In FY 2003 the overall average response to 77 questions in 11 categories was 3.78.

- No category was rated below the natural indifference point.

The following table describes these findings in additional detail:

	Category	Average Response		Percent Change
		FY 2002	FY 2003	
1	Help Desk	3.99	3.98	-0.3%
2	Computer Training	3.91	3.96	1.2%
3	General Issues With ITS	3.57	3.59	0.5%
4	Network and Security Services	3.36	3.15	-6.2%
5	Email Services	3.74	3.8	1.7%
6	Lotus Notes Services	3.90	3.92	0.5%
7	CityNet [intranet services]	3.63	3.69	1.6%
8	Applications	3.67	3.59	-2.1%
9	Electronic Publishing Office	4.14	4.13	-0.2%
10	Telecommunications Services	n/a	3.92	n/a
11	Web Team Services	n/a	3.73	n/a

These differences are within the 5 percent margin of error for the study.

As a result of this year's findings, ITS has begun convening quarterly information sharing meetings of IT Coordinators, LAN Administrators, and other City IT staff, to brief theses individuals on activities within ITS that may also impact them.

Telecommunications Management

In January 2002, the telecommunications group was transferred from the General Services Department to the Information Technology Services (ITS) Department. This move was designed to foster synergies between the telecommunications and information technology functions within the City.   Following this transfer, ITS engaged a telecommunications consulting firm to assess the City's telecommunications program, and to recommend best practices to be implemented. The firm recently completed its report, and recommended improvements to support processes and procedures, management tools and metrics, accounting and billing procedures and strategic planning.   Please see the 'Telephony' project on page 102 for additional information regarding these initiatives.

Beginning in 2003, the City embarked on a 10-year telephone handset and switch replacement initiative. Six years of the cost of the replacements are budgeted in the FY 2005 - FY 2010 IT Plan. The additional years will be added in future years' IT planning documents.   The replacement plan takes into consideration records of equipment repair and maintenance, the age and type of existing telephone switches, the number of handsets at each site, and sites that were recently rebuilt or moved. Using this data, a recommended replacement schedule was developed, with calculated replacement costs for the switches and telephones using prices from existing City contracts.

Wireless Services

Wireless technologies and applications are becoming commonplace across the United States and throughout the world. It is anticipated that by 2005 all new computing devices (computers, Personal Digital Assistants [PDA's], smart phones, etc.) will be built to accommodate wireless accessability. This technology trend is a direct response to the changing economic landscape, where our culture is becoming an increasingly information-based society. Consequently, workers and consumers are demanding easy access to information - any time, any place, anywhere. As a result, the economy is embracing wireless technology as a means to facilitating ubiquitous access to information.

According to several independent bodies, there is a dramatic growth in the number of cities and economic regions across the United States where individuals have

wireless Internet connectivity. At these locations, vendors and merchants (and some governments) have installed wireless computing equipment that enable people to access wireless networks with laptops, personal digital assistants (PDAs), and other wireless-enabled devices. These wireless locations are called "hot-spots," and the objective of these hot-spots is to accommodate users with Internet connectivity using Wi-Fi (short for wireless fidelity) technologies. In fact, the level of service extended by these hot-spots is equivalent to the level of Internet experience offered by wired local area networks, but with the added advantage of convenience and ease of access.

A single hot-spot can range in size from a 5,000 square foot office to multiple office buildings, or an entire campus. In larger implementations where a hot-spot spans an entire district such that it is expressed in square miles, then the term "hot-zone" is used to describe the coverage area.

Wireless Connectivity

Wireless transmission technologies provide many opportunities for work process innovation and improvements. Providing access to City information services in a way that does not require a City staff member be at their desk, can change the way in which a variety of City jobs are performed, improving service delivery to residents and businesses.

- Initiatives in the City that use wireless technologies include the Police Department's mobile computing system. This wireless system provides a variety of information to police officers in the field, via mobile computer units located in their patrol vehicles. Information such as photographs of missing children, up-to-the-minute data on stolen vehicles, crimes in progress and other vital information has positively impacted the effectiveness of the police force. In addition, police officers are now able to use their mobile computer units to write and submit their police reports. This capability has reduced the report writing backlog from 4 months to less than 24 hours. Officers query the data in the Records Management System through a web-based interface.

- The City's parking enforcement officers (PEO's) use handheld ticket writing devices that, through wireless connectivity, allows them to check vehicle license tags to see if the vehicle has been cited multiple times.

- On a limited basis, the City is currently providing wireless connectivity to the City's email services through personal data assistants (PDA's), small handheld computing devices. Accessing email remotely enables faster response to issues that would not normally be addressed until the employee returned to his or her office.

Planned Wireless-Based E-Government Services

- The Police Department is planning to issue a wireless-ready computer to all operational officers with the eventual goal of outfitting all sworn staff, which will ensure all staff have access to the same information and conveniences.

- Wireless access to the City's Permitting application is now being implemented. Allowing the City's Code Enforcement Inspectors to access the Permitting application in the field will produce time savings, and the system will reflect up-to-the-minute data. This level of connectivity is more complex than the Police Department's report writing, however, due to the need to access and update ever-changing application data in a real-time environment.

- Support for telecommuting initiatives. In October 2000, the Alexandria City Council requested staff to study and develop a telework policy for City employees. Once implemented, teleworking will allow select City employees to access City network applications and documents from their home or a telework center. To allow for safe, convenient and secure computing from a home environment, the terminal services infrastructure elements to support this initiative must first be in place. Staff is testing the usage and evaluating the cost of implementing the Citrix MetaFrame application serving platform, which provides secure access to applications and networks from any device, both wired and wireless.

- The Fire Department will be adding mobile computers to the Fire and Emergency Medical Services (EMS) vehicles to send dispatch information in a textual format. In addition, plans are underway to implement automatic vehicle locator (AVL) in each vehicle using global positioning satellite (GPS) technology.   AVL will improve incident response time by enabling dispatch operators to dispatch the appropriate vehicles located closest to the incident. More information about this project can be found under the 'Fire On Board' project on page 79.

- Over the next year, because Verizon is eliminating their CDPD wireless technology service (due to technological advances) both the Police and Fire Departments will need to plan and implement conversion to a new wireless technology. The additional costs of this new technology are included in the FY 2005 Police and Fire operating budgets.

State Government Information Technology Services

With the release of Governor Warner's Strategic Plan for Technology in September 2002, the Commonwealth embarked on one of the most sweeping reforms of information technology in the nation.

The creation of the Virginia Information Technologies Agency (VITA) by the 2003 General Assembly is widely recognized, both within and outside the Commonwealth, as a bold initiative to bring significant efficiencies and service improvements to the state's technology infrastructure.

As outlined by the General Assembly, the transition of the Commonwealth's IT infrastructure began in September 2003 with small-sized agency transition targeted for completion January 1, 2004. The transition period for medium agencies is to be completed on or before July 1, 2004, and for large agencies on or before January 1, 2005.

The Governor's Strategic Plan is focused on changes to State government IT operations and says very little about the role or voice that local governments will have in working with the State on IT issues. The Governor's plan is ambitious and is expected to be a work in progress throughout his administration and beyond. The plan's guiding principles communicate that:

- Virginia seeks exponential change, not incremental change.

- Technology is not an end unto itself

- Technology is complex

- Performance measurement is at the crux of decision making

- Technology relies on increasing cooperation across traditional borders

- Accountability drives results

- There is a need to act now

Within these principles, the plan seeks to:

- Revolutionize service delivery to customers

- Consolidate IT infrastructure and provision of centralized services

- Plan, budget and track IT expenditures

- Manage IT procurement

- Increase federal research and development funding

- Increase commercialization of intellectual property

- Increase state broadband deployment

- Promote technology-based economic development

Though the plan "calls for increased cooperation across the Commonwealth - from agencies, localities and the business community" there appears to be very little in the plan that addresses the specific needs and place at the table for localities. ITS, along with the Northern Virginia members of MetroCIO - a group which includes CIOs and IT Directors from almost all of the jurisdictions in the metropolitan Washington area - will be closely monitoring the State's progress on this plan and working to insure that localities have a meaningful opportunity to work with the State on planning and implementation.

The Council on Technology Services (COTS), which is currently the State's primary means of coordinating IT issues with localities, will continue to operate. There are currently six COTS working groups:

- The Executive Committee (which is chaired by Fairfax County CIO, Dave Molchany)

- Change Management Support

- Commonwealth Enterprise Systems

- Internet Services (which is co-chaired by Virginia Beach CIO, Dave Sullivan and Tim Bass of the Virginia Retirement System)

- Security

- Technology Management

The working groups are consistent with the governance structure identified in the Governor's strategic plan.

Statistical Summary

These pages provide statistical information about the City's information infrastructure.

Web Site - Most Visited Areas

Each month of the year staff identifies the most visited areas in the City's web site. The chart below is a composite of all of FY 2003, showing the overall most visited areas for the year.

<u>Web Site Pages Areas of Interest</u>
<u>FY 2003</u>
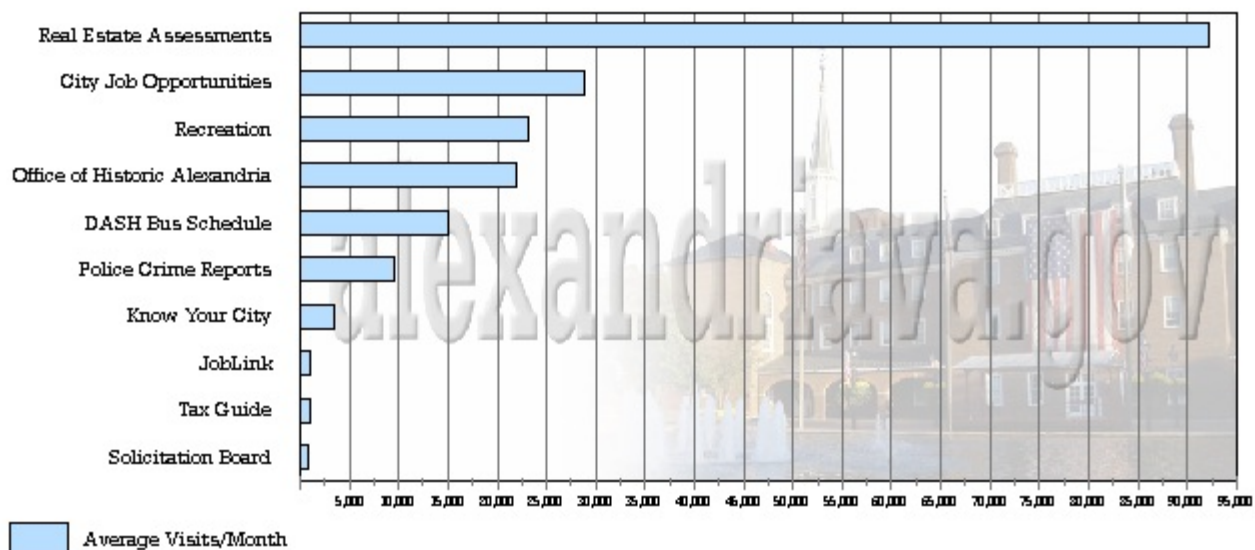
Web Site Activity

The City's web site continues to be popular, reflecting the usefulness of the site and the quantity and quality of content. Shown below is a representation of the actual number of page views presented, which filters out all the hits attributed to images, scripts and other executables on a given page.
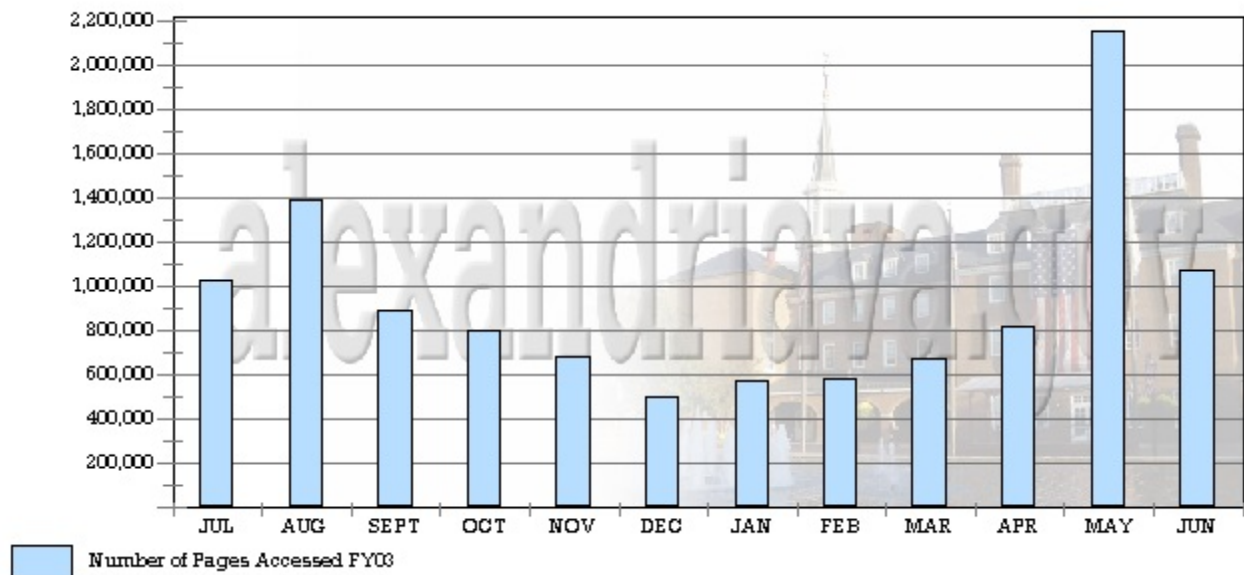
Infrastructure Profile

The following table presents basic information about the City's information infrastructure.

Indicator	FY 2005	FY 2004	FY 2003	FY 2002
Number of Computer Workstations	2,200	2,000	2,000	1,800
Number of Nodes Connected to the Institutional Network (I-Net)				
Government	47	47[1]	45	45
Libraries	4	4	4	4
Schools	22	22	22	22
Number of Email Accounts[2]	2,450	2,300[2]	1,800	1,800
Operating System Standard	Windows 2000	Windows 2000	Windows 2000	Windows 98/NT/2000
Network Operating System Standard	Windows 2000 Advanced Server	Windows 2000 Advanced server	Windows 2000 Advanced server	NT4/ Win 2000
Desktop Software Standards				
Word Processing System	Corel Word Perfect, MS Office Suite	Corel Word Perfect, MS Office Suite	Corel Word Perfect, MS Office Suite	Corel Word Perfect
Presentation Graphics	MS Powerpoint	MS Powerpoint	MS Powerpoint	Powerpoint or Corel Presentations
Spreadsheets	Corel Quattro Pro	Corel Quattro Pro	Corel Quattro Pro	Corel Quattro Pro
Number of Remote Dial-in Connections	31	31	31	31
Firewalls deployed	4	4	4	4

---

[1] The count includes the addition of the Lloyd House and *Job*Link, both added to the I-Net in FY 2004.

[2] The count includes both accounts assigned directly to staff members and accounts that are assigned to a computer workstation. The latter are typically used in locations where several employees share a computer workstation or are for special network devices such as network servers. The increase in FY 2004 is attributable to improvements in reporting capabilities in the City's email application.

Changes to the IT Plan from the Prior Year

The FY 2005 to FY 2010 Information Technology Capital Improvement Plan (IT/CIP) total of $17,897,877 continues the City's Information Technology agenda. The IT/CIP total of $17.9 million in City funding compares with $19 million in City funding in the FY 2004 to FY 2009 Information Technology Capital Improvement Plan. This represents a decrease of $1.1 million, or 6 percent.   The decrease is primarily caused by FY 2004 funding of $3.2 million for the Public Safety Radio System replacement. The balance of the FY 2005 to FY 2010 IT/CIP is financed by outside revenues, primarily from Comcast as part of its cable franchise requirements.

The City requested funding for the FY 2005 to FY 2010 IT Plan is as follows:

	City Share	Outside Revenues	Total
FY 2005	$3,109,714	$1,618,062	$4,727,776
FY 2006	$4,833,708	$1,521,824	$6,355,532
FY 2007	$3,180,045	$1,470,396	$4,650,441
FY 2008	$1,986,655	$1,330,000	$3,316,655
FY 2009	$1,984,899	$1,330,000	$3,314,899
FY 2010	$2,802,856	$1,330,000	$4,132,856
Total	$17,897,877	$8,600,282	$26,498,159

The FY 2005 to FY 2010 IT Plan includes projects that will continue to strengthen the City's IT infrastructure. On-going maintenance and improvements to the City's local area networks (LANs) and wide area network (WAN) ensure the continued integrity of these essential components of the City's infrastructure.

Continued funding for system development projects allows the City to take advantage of emerging technologies, capitalize on investments already made, ensure compliance with federal and state mandates, and provides for improvements to existing processes and systems to improve efficiencies.

The following is a listing of project changes in FY 2005 - 2010. The new, changed and closed projects are referenced, along with the years in which changes occurred.

New Projects for FY 2005 - FY 2010

System Development Projects:

- Video Arraignment Equipment Replacement (FY 2005). Monies are included to replace the Sheriff's aged video arraignment equipment, and to provide equipment to the Northern Virginia Juvenile Detention Home for video arraignments.

- FIRE On Board Computer System (FY 2005 - no City funds requested, however.) Project provides for the installation of mobile data computers in City Fire Department vehicles. Funded through the federal Byrne grant.

- Homeless Management Information System - (FY 2005 - no City funds required, however.) Project is for the purchase of software and services to provide an unduplicated count of homeless persons served in the City of Alexandria. This count is mandated by the Department of Housing and Urban Development, who may remove City HUD homeless funds if this is not provided. Funding of $50,000 for this project is provided through a City Community Development Block Grant.

Infrastructure Projects:

- ITS Recovery Site (FY 2005). Federal funding will be sought to develop an internal City hotsite. $50,000 of City funds are included in this project to fund the City's share of a feasibility study for the establishment of a regional hotsite.

- Network Operations Center Upgrades (FY 2005, 2006, 2007). $200,000 is included in each year to fund structural improvements to the City's currently overcrowded network operations center.

- Wireless Initiatives (Information Utility) (FY 2005). $50,000 is included to provide funds for the establishment of a wireless infrastructure project within the City.

- Email Systems Development (FY 2005, 2006, 2007, 2008, 2009 and 2010). $250,000 is included in FY 2005 for improvements to this important City function. Upgrades, mobile device infrastructure support, and archiving solutions are included.

Existing Projects Which Have Been Changed

System Development Projects

- Real Estate Accounts Receivable/CARAT Replacement (FY 2006). Monies for the Real Estate Accounts Receivable component of this project are included in FY 2006, in the amount of $500,000.

- Document Management and Imaging (FY 2010). An increase of $150,000 has been added to this project in FY 2006 to fund new imaging initiatives. In addition, funding for this project extended through FY 2010 in the amount of $50,000.

- Library/Automated Catalog Replacement System (FY 2005). An increase of $50,000 for this project is included in FY 2005 to fund requirements gathering and project management.

- General Ledger System (FY 2006 and FY 2010). Monies in the amount of $100,000 are included in this project for a web version, anticipated to be available in FY 2006. In addition, $500,000 is included in FY 2010 to provide funds to replace the current product, should the City need to pursue this option.

- Revenue Collection Management System (FY 2005). An amount of $35,000 is included in FY 2005 for the development of a requirements analysis report.

- Intranet (FY 2006). An amount of $25,000 is included in this project in FY 2006 for continued development of the City's intranet.

- OMB Systems (FY 2006). An amount of $75,000 is included for the current system vendor's web product, anticipated to be available in FY 2006.

- Police/Fire CAD/RMS (FY 2006, FY 2008 and FY 2010). Monies are included for hardware replacement for this system that is used 24-hours-per-day.

- Public Safety Radios (FY 2006). Monies in the amount of $800,000 are included in FY 2006 to fully fund the project (based upon current estimates).

- Help Desk Replacement (FY 2006). $30,000 is included in FY 2006 for personal digital assistants for field access to this application.

- Web Site Enhancements (FY 2010). Funding for this project is extended through FY 2010.

- Electronic Government (FY 2010). Funding for this project is extended through FY 2010.

- Geographic Information Systems (FY 2005, FY 2010). Funding for this project is reduced in FY 2005 by $150,000, due to the availability of prior year unspent resources. Project extended through FY 2010.

- AJIS Enhancements (FY 2010). Funding for this project is extended through FY 2010.

Infrastructure Projects

- Storage Area Network (FY 2006). Funding for this project will increase in FY 2006 to provide funds for ongoing SAN development and for replacement of the City's tape backup unit (ADIC).

- Telephony Integration (FY 2005 and 2010). An increase of $100,000 is included in FY 2005: $50,000 for an automated billing system, and $50,000 for implementing improvements in delivery of telecommunications services.

- Database Infrastructure (FY 2005, FY 2010). Funding for this project is reduced in FY 2005 by $65,000, due to the availability of prior year unspent resources. Project extended through FY 2010.

- I-Net Upgrades (FY 2010). This project is funded through FY 2010.

Projects Which Have Been Closed

System Development Projects

- Alexandria Justice Information System (AJIS) Development - This project was completed in FY 2004.

- Fleet Services Bar Coding Module - This system was purchased and implemented in FY 2004.

- Facilities Maintenance System - This system was completed in FY 2003.

- Telephone Emergency Notification System (TENS) - This system was implemented in FY 2004.

- Sheriff's Inmate Classification Software System - This system is being acquired and will be implemented in FY 2004/2005.

- MHMRSA Citrix Upgrade - This project has been completed.

Projects Organization

Information Technology projects are organized into two broad categories:

- Systems Development Projects, project 015-015, which is sub-divided as follows:
    Public access development
    Document management systems
    Financial systems
    Geographic information systems
    Public safety systems
    Recreation systems
    Other systems

- Infrastructure Projects, project 015-014, which is sub-divided as follows:
    Local Area Network (LAN) infrastructure
    Wide Area Network (WAN) infrastructure
    Enterprise Services
    Other Infrastructure Projects

A summary of these projects and costs is shown on page 37, with operating budget impacts on page 41.

Project Priorities in the IT Plan

Each project in the IT Plan has been assigned a rating to reflect its overall priority to assist with decision-making and resource allocation. Each project has been assigned one of three ratings - essential, very desirable, or desirable - or a designation that the project is currently unrated.

Generally, the highest rating of "essential" has been applied to projects that are:

- required to address an urgent health or safety hazard;

- needed to meet legal requirements or State or federal mandates;

- essential to the success of other projects or a larger program in progress;

- cannot be deferred without the loss of substantial non-City funding; and

- required for economic growth and development.

Other projects have been rated as "very desirable" or "desirable" depending upon the extent and degree of benefit provided. Generally, projects that maintain or improve a current system's functionality are assigned priority over new projects that provide new system capabilities.

Summary Totals

The following two pages summarize spending on Information Technology for FY 2005 to FY 2010. Detailed descriptions follow the summary.

Information Technology
Capital Improvement Plan For FY 2005 to FY 2010
  23-Jun-04

	CIP Project ID	Project Title	Net Totals	Prior Year	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010
							Net Balances			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	**TOTAL Net Costs - All Information Technology CIP Projects**		**25,722,679**	**7,824,802**	**3,109,714**	**4,833,708**	**3,180,045**	**1,986,655**	**1,984,899**	**2,802,856**
2										
3	**015-015**	**Systems Development**	**16,755,902**	**7,168,902**	**1,598,500**	**3,012,500**	**1,400,000**	**850,000**	**857,500**	**1,868,500**
4										
5	*015-015-1A*	*Public Access Development*	*3,342,840*	*992,840*	*600,000*	*350,000*	*350,000*	*350,000*	*350,000*	*350,000*
6	015-015-10	Web Site Enhancements		592,340	125,000	125,000	125,000	125,000	125,000	125,000
7	015-015-19	Library Automated Catalog System Replacement		0	250,000	0	0	0	0	0
8	015-015-4	Electronic Government		400,500	225,000	225,000	225,000	225,000	225,000	225,000
9	015-015-30	Public Access to Land Records		0	0	0	0	0	0	0
10										
11	*015-015-1*	*Document Management Systems*	*671,730*	*221,730*	*50,000*	*200,000*	*50,000*	*50,000*	*50,000*	*50,000*
12	015-015-1-3	MHMRSA Medical Records Management		16,500	0	0	0	0	0	0
13	015-015-2A	Human Resources System		5,250	0	0	0	0	0	0
14	015-015-21	Document Management and Imaging Infrastructure		75,000	50,000	200,000	50,000	50,000	50,000	50,000
15	015-015-2-7	Finance Document Management System		124,980	0	0	0	0	0	0
16										
17	*015-015-2*	*Financial Systems*	*3,160,000*	*900,000*	*520,000*	*1,060,000*	*60,000*	*60,000*	*60,000*	*500,000*
18	015-015-2-3	Real Estate Assessment and Accounts Receivable System Rep		300,000	0	500,000	0	0	0	0
19	015-015-2-4	OMB Systems		0	0	75,000	0	0	0	0
20	015-015-2-5	Payroll/Personnel System		350,000	425,000	325,000	0	0	0	0
21	015-015-7A	Remote Time and Attendance		150,000	0	0	0	0	0	0
22	015-015-2-8	Financial Accounting and Asset Management System		100,000	60,000	160,000	60,000	60,000	60,000	500,000
23	015-015-41	Revenue Collection Mgt. System		0	35,000	0	0	0	0	0
24										
25	*015-015-3*	*Geographic Information Systems*	*927,600*	*252,600*	*0*	*150,000*	*150,000*	*150,000*	*150,000*	*75,000*
26	015-015-3-3	GIS Development		252,600	0	150,000	150,000	150,000	150,000	75,000
27										
28	*015-015-4*	*Public Safety Systems*	*7,628,132*	*4,071,132*	*368,500*	*1,137,500*	*730,000*	*180,000*	*247,500*	*893,500*
29	015-015-4-1	Public Safety Radio System Replacement		3,552,842	0	800,000	0	0	0	0
30	015-015-36	AJIS Enhancements		0	150,000	150,000	150,000	150,000	150,000	150,000
31	015-015-4-3	Police/Fire Computer Aided Dispatch (CAD)/RMS Project		518,290	0	182,500	575,000	30,000	97,500	743,500
32	015-015-34	Interoperability Strategies for Public Safety		0	0	0	0	0	0	0
33	015-015-24	Tactical Computer System		0	0	0	0	0	0	0
34	015-015-25	Virginia Commonwealth Attorney Information System		0	35,000	5,000	5,000	0	0	0
35	015-015-33	Emergency Operations Center		0	0	0	0	0	0	0
36	015-015-38	E-911 Planning		0	45,000	0	0	0	0	0
37	015-015-39	EMS Records Management System		0	100,000	0	0	0	0	0
38	015-015-44 NEW	Video Arraignment		0	38,500	0	0	0	0	0
39	015-015-45 NEW	FIRE On Board Computer System		0	0	0	0	0	0	0
40										

	CIP Project ID	Project Title	Net Totals	Prior Year	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
41		*Recreation Systems*	75,000	*75,000*	*0*	*0*	*0*	*0*	*0*	*0*
42										
43	015-015-5-2	Recreation Systems		75,000	0	0	0	0	0	0
44	015-015-5-3	Recreation Computer Laboratories		0	0	0	0	0	0	0
45										
46	015-015-5	*Other Systems*	950,600	*655,600*	*60,000*	*115,000*	*60,000*	*60,000*	*0*	*0*
47	015-015-5-1	Permit Processing		400,600	60,000	60,000	60,000	60,000	0	0
48		Permit System Replacement/1				To Be Determined				
49	015-015-28	Intranet		80,000	0	25,000	0	0	0	0
50	015-015-29	TES Infrastructure Management and Maintenance System		100,000	0	0	0	0	0	0
51	015-015-32	Help Desk System		0	0	30,000	0	0	0	0
52	015-015-31	MHMRSA HIPAA Data Security Compliance		75,000	0	0	0	0	0	0
53	015-015-46	NEW Homeless Management Information System		0	0	0	0	0	0	0
54										
55	**015-014**	**Infrastructure Projects**	**8,966,777**	**655,900**	**1,511,214**	**1,821,208**	**1,780,045**	**1,136,655**	**1,127,399**	**934,356**
56										
57	015-014-1	*Local Area Network (LAN) Services*	5,155,475	*434,900*	*631,200*	*1,112,000*	*990,000*	*676,125*	*744,125*	*567,125*
58	015-014-1	LAN Backbone Capacity		50,000	50,000	50,000	50,000	50,000	50,000	50,000
59	015-014-1-2	Individual Building LAN Development		50,000	0	25,000	25,000	25,000	25,000	25,000
60	015-014-1-3	Upgrade Network Operating System		30,000	25,000	25,000	25,000	25,000	15,000	0
61	015-014-1-4	Upgrade Work Station Operating Systems		35,000	0	55,000	50,000	50,000	50,000	50,000
62	015-014-1-5	Network Infrastructure Hardware Upgrades/ Replacement		269,900	506,200	557,000	840,000	526,125	604,125	442,125
63	015-014-14	Storage Area Network		0	50,000	400,000	0	0	0	0
64										
65	015-014-2	*Wide Area Network (WAN) Services*	2,038,302	*221,000*	*330,014*	*334,208*	*301,045*	*285,530*	*289,274*	*277,231*
66	015-014-6	Institutional Network Development		0	0	0	0	0	0	0
67	015-014-6a	Institutional Network Upgrades/2		0	0	0	0	0	0	0
68	015-014-8	Telephony Integration		0	305,014	244,208	211,045	195,530	199,274	187,231
69	015-014-3	Security		50,000	25,000	25,000	25,000	25,000	25,000	25,000
70	015-014-15	Computer Work Station Software Management		83,000	0	0	0	0	0	0
71	015-014-13	Database Infrastructure		88,000	0	65,000	65,000	65,000	65,000	65,000
72										
73	015-016	*Enterprise Services*	1,123,000	*0*	*300,000*	*175,000*	*289,000*	*175,000*	*94,000*	*90,000*
74	015-016-1	NEW E-mail Services		0	250,000	175,000	289,000	175,000	94,000	90,000
75	015-016-2	NEW Wireless Initiatives (Information Utility)		0	50,000	0	0	0	0	0
76										
77	015-017	*Other Infrastructure*	650,000	*0*	*250,000*	*200,000*	*200,000*	*0*	*0*	*0*
78	015-017-01	NEW Network Operations Center Upgrades		0	200,000	200,000	200,000	0	0	0
79	015-017-2	NEW Disaster Recovery - Hot Site		0	50,000	0	0	0	0	0

/1 -   The Permitting System may be replaced in a future year. Costs will not be included pending the completion of a planned business process study of the permitting process.

/2 -   The cable television franchise agreement with AT&T/Comcast provides for Comcast to provide the City a base payment of approximately $665,000 per year, as well as an additional $665,000 per year
        if the City provides matching funds.

Operating Budget Impacts

The following table summarizes the estimated impacts of the implementation of relevant projects included in the Information Technology Plan on the City's operating budget.

	CIP Project ID		Project Title	Six Year Totals	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010
	(1)		(2)	(3)	(5)	(6)	(7)	(8)	(9)	(10)
1	**TOTAL Operating Costs - All Information Technology CIP Projects**			**8,665,969**	**1,203,111**	**1,425,564**	**1,455,970**	**1,498,471**	**1,505,063**	**1,577,790**
2										
3	**015-005**		**Systems Development**	**8,265,969**	**1,203,111**	**1,345,564**	**1,375,970**	**1,418,471**	**1,425,063**	**1,497,790**
4										
5	*015-015-1A*		*Public Access Development*		*5,000*	*42,500*	*42,500*	*42,500*	*42,500*	*42,500*
6	015-015-10		Web Site Enhancements		0	0	0	0	0	0
7	015-015-19		Library Automated Catalog System Replacement		0	37,500	37,500	37,500	37,500	37,500
8	015-015-4		Electronic Government		5,000	5,000	5,000	5,000	5,000	5,000
9	015-015-30		Public Access to Land Records		0	0	0	0	0	0
10										
11	*015-005-1*		*Document Management Systems*	*195,300*	*28,800*	*51,300*	*28,800*	*28,800*	*28,800*	*28,800*
12	015-015-1-3		MHMRSA Medical Records Management		21,300	21,300	21,300	21,300	21,300	21,300
13	015-015-2A		Human Resources System		0	0	0	0	0	0
14	015-015-21		Document Management and Imaging Infrastructure		7,500	30,000	7,500	7,500	7,500	7,500
15	015-015-2-7		Finance Document Management System		0	0	0	0	0	0
16										
17	*015-005-2*		*Financial Systems*	*651,000*	*95,000*	*110,000*	*95,000*	*95,000*	*95,000*	*161,000*
18	015-015-2-3		Real Estate Assessment and Accounts Receivable System Replacement		30,000	30,000	30,000	30,000	30,000	30,000
19	015-015-2-4		OMB Systems		18,000	18,000	18,000	18,000	18,000	18,000
20	015-015-2-5		Payroll/Personnel System		0	0	0	0	0	0
21	015-015-7A		Remote Time and Attendance		38,000	38,000	38,000	38,000	38,000	38,000
22	015-015-2-8		Financial Accounting and Asset Management System		9,000	24,000	9,000	9,000	9,000	75,000
23	015-015-41		Revenue Collection Mgt. System		5,250	5,250	5,250	5,250	5,250	5,250
24										
25	*015-005-3*		*Geographic Information Systems*	*626,400*	*104,400*	*104,400*	*104,400*	*104,400*	*104,400*	*104,400*
26	015-015-3-3		GIS Development		104,400	104,400	104,400	104,400	104,400	104,400
27										
28	*015-005-4*		*Public Safety Systems*	*6,378,849*	*937,091*	*1,004,544*	*1,072,450*	*1,114,951*	*1,121,543*	*1,128,270*
29	015-015-4-1		Public Safety Radio System Replacement		70,000	70,000	70,000	70,000	70,000	70,000
30	015-015-36		AJIS Enhancements							
31	015-015-4-3		Police/Fire Computer Aided Dispatch (CAD)/RMS Project		0	0	0	0	0	0
32	015-015-34		Interoperability Strategies for Public Safety		0	0	0	0	0	0
33	015-015-24		Tactical Computer System		734,091	801,544	869,450	911,951	918,543	925,270
34	015-015-25		Virginia Commonwealth Attorney Information System		0	0	0	0	0	0
35	015-015-33		Emergency Operations Center		11,250	11,250	11,250	11,250	11,250	11,250
36	015-015-38		E-911 Planning		6,750	6,750	6,750	6,750	6,750	6,750
37	015-015-39		EMS Records Management System		15,000	15,000	15,000	15,000	15,000	15,000
38	015-015-44	NEW	Video Arraignment		0	0	0	0	0	0
39	015-015-45	NEW	FIRE On Board Computer System		100,000	100,000	100,000	100,000	100,000	100,000
40										

CIP Project ID		Project Title	Six Year Totals	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010
(1)		(2)	(3)	(5)	(6)	(7)	(8)	(9)	(10)
41		*Recreation Systems*	36000	6,000	6,000	6,000	6,000	6,000	6,000
42									
43 015-015-5-2		Recreation Systems		6,000	6,000	6,000	6,000	6,000	6,000
44 015-015-5-3		Recreation Computer Laboratories		0	0	0	0	0	0
45									
46 *015-005-5*		*Other Systems*	**160,920**	*26,820*	*26,820*	*26,820*	*26,820*	*26,820*	*26,820*
47 015-015-5-1		Permit Processing		0	0	0	0	0	0
48		Permit System Replacement			To Be Determined				
49 015-015-28		Intranet		0	0	0	0	0	0
50 015-015-29		TES Infrastructure Management and Maintenance System		11250	11250	11250	11250	11250	11250
51 015-015-31		MHMRSA HIPAA Data Security Compliance		0	0	0	0	0	0
52 015-015-32		Help Desk System		11250	11250	11250	11250	11250	11250
53 015-015-46	NEW	Homeless Management Information System		4320	4320	4320	4320	4320	4320
54									
55 *015-004*		***Infrastructure Projects***	***400,000***	*0*	*80,000*	*80,000*	*80,000*	*80,000*	*80,000*
56									
57 *015-004-1*		*Local Area Network (LAN) Services*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
58 015-014-1		LAN Backbone Capacity		0	0	0	0	0	0
59 015-014-1-2		Individual Building LAN Development		0	0	0	0	0	0
60 015-014-1-3		Upgrade Network Operating System		0	0	0	0	0	0
61 015-014-1-4		Upgrade Work Station Operating Systems		0	0	0	0	0	0
62 015-014-1-5		Network Infrastructure Hardware Upgrades/ Replacement		0	0	0	0	0	0
63 015-014-14		Storage Area Network		0	0	0	0	0	0
64									
65 *015-004-2*		*Wide Area Network (WAN) Services*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
66 015-014-6		Institutional Network Development		0	0	0	0	0	0
67 015-014-6a		Institutional Network Upgrades/2		0	0	0	0	0	0
68 015-014-8		Telephony Integration		0	0	0	0	0	0
69 015-014-3		Security		0	0	0	0	0	0
70 015-014-15		Computer Work Station Software Management		0	0	0	0	0	0
71 015-014-13		Database Infrastructure		0	0	0	0	0	0
72									
73 *015-016*		*Enterprise Services*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
74 015-016-1	NEW	E-mail Services		0	0	0	0	0	0
75 015-016-2	NEW	Wireless Initiatives (Information Utility)		0	0	0	0	0	0
76									
77 *015-017*		*Other Infrastructure*	*400,000*	*0*	*80000*	*80000*	*80000*	*80000*	*80000*
78 015-017-01	NEW	Network Operations Center Upgrades		0	0	0	0	0	0
79 015-017-2	NEW	Disaster Recovery - Hot Site		0	80000	80000	80000	80000	80000

System Development Projects - Project 015-015

This CIP project category includes development of computer application systems in finance, geographic information and public safety for departments and agencies, the development of automated document management services, and the development of the City's radio communications network for both public safety and operating government agencies.

Public Access Development

Systems Development (015-015)

	Prior Year Unallocated	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	Totals
Web Site Enhancements	592,340	125,000	125,000	125,000	125,000	125,000	125,000	1,342,340
Library Automated Catalog System Replacement	0	250,000	0	0	0	0	0	250,000
Electronic Government	400,500	225,000	225,000	225,000	225,000	225,000	225,000	1,750,500
Public Access to Land Records	0	0	0	0	0	0	0	0
Totals	**992,840**	**600,000**	**350,000**	**350,000**	**350,000**	**350,000**	**350,000**	**3,342,840**

Web Site Enhancements (015-015-10)   Priority: Very Desirable

This project includes enhancements to, and applications for, the City of Alexandria's public web site which has recently been changed to **alexandriava.gov**.

Monies in this project fund the ongoing development and evolution of departmental pages on the City web site. Additional web site enhancements and applications are evaluated on a regular basis with input from the Information Technologies Steering Committee, Alexandria Communicators and its Web Committee, (see Appendix B, page 121), and the City Council's Information Technology Commission.

Some of the most recent web site enhancements include:

- eChecks, allowing online tax and parking ticket payments from savings and checking accounts with no fee
- GIS Parcel Viewer, the City's first interactive, GIS-based, mapping application
- Police Department forms, permitting online submission of suggestions, complaints, commendations or concerns
- Expanded eNews You Can Use e-mail subscription service
- City of Alexandria Statistical Profile web site
- Homepage Redesign resulting from Usability/Accessibility study
- Online submission of Fire Protection System inspections and test scheduling
- Election results for the Mayoral, City Council, and School Board elections

- Campaign Finance Disclosures for May 6 election for Mayor, City Council and School Board
- Office on Women Shift Calendar, allowing volunteers to sign up for shifts and trade shifts with other volunteers
- Emergency Preparedness Guide (published in six languages)
- Our Kids-Our Business Calendar of Events
- Technology Award Winner Video
- Traffic Calming web site
- New Department of Human Services Web Site
- Breast Cancer Walk Sponsor packets
- Code Enforcement Deck Safety
- Certification form for Car Tax Reduction
- Local Economic Indicators, Commercial Development opportunities, and quarterly economic development newsletter
- Board of Architectural Review site
- Solicitation Bid Board web site, announcing procurements of $50,000 and over
- Board and Commissions Calendar and Vacancies
- Server replacement for online submission of job applications
- Security upgrades (ongoing)
- Classification and Compensation web site
- Mulch and Recycling program enhancements for T&ES web site
- Health Department web site redesign
- Coping with Terror Alerts
- 2003 City Annual Report
- Approved FY 2004 Budget and Capital Improvement Plan
- DASHbus.com schedule updates (ongoing)
- City Crime Statistics annual update
- Monthly web statistics report
- Web listing of delinquent property taxes
- Modified Site Feedback functionality and procedures
- Permit Tracker application, with access to building, electrical, mechanical, and plumbing permits details and status
- New Historic Alexandria pages, including "Tobacco and Tourism," Lyceum rentals, and Candlelight Tours
- Recycling for Business web site updates
- Grant web site for the Neighborhood Partnership Program
- New City Council updates (pictures and biographies)
- Continued periodic upgrades to software for web cluster servers
- Enhanced Real Estate Assessments Information search and system functions

Over the next year, web site enhancements will include:

New Domain Name - When the City's web site was launched in 1996, the City adopted the name convention for local government web addresses: ci.alexandria.va.us. Since that time, many local governments have moved away from

this convention, in favor of shorter, more marketable names. Based on input from users, staff, and consultants, and within the limits of federal regulations and available domain names, the City has replaced its original address with the new address: **alexandriava.gov**. Although the old address will continue to point users to the City's homepage, all new marketing material will use the new address.

Site Redesign - The City's web site has only undergone one major redesign since its inception in 1996. The City's Web Team has completed a redesign of the homepage, which has been implemented and will be tested over the next year. If successful, the new design will be applied to secondary web site pages, as well.

Content Management System - The current web site is maintained using mostly manual processes, and most content is converted and edited by the Web Team. The City will procure a new content management system to automate these processes, which will allow departmental staff to create and maintain their own web content. This will permit the Web Team to shift their work focus to complex web work and new application development.

Accessibility - The City's homepage is compliant with federal ADA guidelines to assist web users with disabilities. All departmental and new development content is compliant with these guidelines. A key requirement of the new site design and content management system is that all content be inherently compliant.

Disaster Recovery - With increased reliance on the web site for emergency communications and operations – as evidenced most recently during Hurricane Isabel and the January 2004 winter storms – the City will be investigating the costs and feasibility of improving disaster recovery options for the web site.

Geographic Information System (GIS) - Using the web map viewer as a foundation, the Web Team will continue to work with Planning & Zoning's GIS Office to integrate GIS data and other web content.

Online Payments - The Web Team will work with the Finance Department to expand the availability of online payment methods, including credit cards and e-checks, with an emphasis on improving customer convenience, reducing fees, and creating internal efficiencies.

Webcasting - The City's web site will make increased use of streaming video and live "webcasting" to present informational videos (such as training sessions and public service announcements) and possibly public meetings (such as City Council and the Planning Commission). This will widen the appeal of the site, while broadening resident access to the City's primary decision-making bodies.

These are just a few of the many potential uses which will require resources in 2005. The acceptance of the web site by the public and the increasing use by staff of the

Internet for work purposes continues to place a load on both equipment and telecommunications capacity. In the past year, an additional server was added for the sole purpose of adding new applications. Residents increasingly come to depend on the web site as their "electronic city hall."

A new competitively bid contract for web development services was awarded in FY 2001, resulting in an increase in costs. When taken with the overall infrastructure and other development costs, this impacted the total estimated requirements by approximately 15 percent.

Operating Budget Impact:

As the number of pages available through the web site grows, the cost of its maintenance - which includes disk space storage fees - will also increase. During the past two years, approximately 2,100 pages have been added to the web site. Most of these pages require programming needs. It is difficult to accurately make predictions about web site growth for the next year except to note that it will continue as demands for new offerings are requested, and as City departments become more aware of the site's capabilities.

The growth of the City's web site – from about 200 pages in 1996 to more than 16,100 today – coupled with the increasing complexity of the site, has increased demands on staff for maintenance of the site. While some departments have taken on the direct maintenance of some or all of their pages, the need to continue to work with other departments to manage their content remains a focus of ITS staff.

Project Benefit:

This project provides enhanced services to the public by making information about the City government available seven days a week, 24 hours a day. In addition, the City's web site provides the platform for delivering certain kinds of City services, such as registration for events (currently in the planning phase), in a cost-effective manner.

Change In Project From Prior Fiscal Years:

• Funding for this project has been extended to FY 2010 in the amount of $125,000.

Library Automated Catalog System Replacement (015-015-19)   Priority: Essential

The Alexandria Library plans to replace its integrated automated library system in FY 2005 at a cost of $250,000. The current system has evolved over the past two decades and was last upgraded with a web-based interface in 1996, and was further upgraded in FY 2002. These upgrades to the current system have eliminated the requirement to replace the system outright until FY 2005.

Project Benefit:

This project will enhance productivity internally, but more importantly, it will improve the library patron's access to the library's collections, its on-line reference resources and other special services such as remote reserving and renewing of materials, delivery to the homebound, and movement of materials between and among branches upon request.

Technical services staff will benefit from a seamless process beginning with branch-level ordering of materials, direct ordering to vendors, simple tracking, expedited cataloging and rapid processing for delivery and shelving. The system will enable branch staffs to order materials from their workstations and continually track items until received in the branches. The welcome screen at each public access terminal will be designed with appealing graphics and ease of use. Managerial staff will have access to a report generator that will allow them to design reports that will help them meet patron needs and determine areas of collection strengths and weaknesses. Inventory control will improve as determination of replacement needs will be accelerated.

Change In Project From Prior Fiscal Years:

- An increase of $50,000 has been added to this project for requirements development prior to procurement, and project management consulting services during implementation.

Electronic Government (015-015-4)   Priority: Very Desirable

The City of Alexandria's E-Government project has been developed to aid in the identification of goals and associated monetary requirements to expand and develop current e-government initiatives within the City. Electronic media are becoming increasingly popular and useful as a means of communication and providing services. As technology continues to evolve, so do the methods to develop e-government services to take advantage of these technologies to produce efficiencies in traditional business practices, providing better customer service in the delivery of government services and information. See page 11 for the City's full E-Government plan.

E-Government services within the City of Alexandria are provided through a variety of electronic methods to City constituent groups (residents, employees, businesses and other governmental entities) to speed up and/or improve traditional business interactions with the City.

Many of the projects within the six-year Information Technology Plan, while perhaps not purely e-government projects, contain e-government elements and funding. The chart below shows the e-government initiatives being funded in the projects included in this plan.

E-Government Initiatives within the FY 2005 - 2010 IT Plan:

Project Name	Initiative	FY 2005 Funding Request
Public Access to Land Records, page 51	To provide access to the Alexandria Circuit Court land records and related documents on the Internet.	$0; this project is underwritten by the State
Online Tax Payments (see Web Site Enhancements project, page 45)	To provide residents and businesses the ability to inquire and pay personal, business, and real estate taxes with e-checks and credit cards online through the City's web site.	$30,000 for development
Geographic Information Systems, page 65	To provide Internet access to maps and map data. Also to provide application access through the intranet.	$35,000 for Internet/intranet initiatives
Alexandria Justice Information System Enhancements, page 70	To develop enhancements to the system, including accommodation of electronic signatures.	$150,000, a portion of which will be used for E-Government
Recreation Systems, page 81	To provide telephone registration for recreation classes.	$0, there are sufficient prior year resources to address this need.
Who Do I Contact? (see Web Site Enhancements project, page 45)	To provide residents or businesses a telephone number to call or an online submission form to submit for maintenance such as a broken street lamp, a traffic light not working, etc.	$10,000
Permitting Systems, page 83	To provide telephone and online inspection scheduling. To provide mobile access to the application.	$60,000
Homepage Redesign (see Web Site Enhancements project, page 45)	To provide better accessibility/usability to the City web site and to meet Section 508 accessibility compliance.	$30,000
Content Management System (see Web Site Enhancements project, page 45)	To provide a style guide and standards for future development of the City's web site and to provide departments the means to maintain content for their web pages.	$30,000 - $300,000
Intranet (CityNet), page 85	To provide access to employees to a variety of City-specific data. In the future, to provide access to some applications.	$0

Please refer to the specifics on each project in this plan for additional information.

Please refer to the overall funding on page 37 for information on the FY 2005 - 2010 six-year funding for each of these projects.

Project Benefit:

Prospective new e-government initiatives are reviewed for conformance to the City's e-government strategic principles (see E-Government Guiding Principles, page 11) to ensure that services are developed that are consistent with the needs of our customers, are economical to deploy and maintain, are secure and have value.

Change in Project from Prior Fiscal Years:

• No change to current funding levels of $225,000 for FY 2005. Funding of $225,000 per year has been extended through FY 2010 to reflect the increasing work supported in this category.

Public Access to Land Records (015-015-30)   Priority: Essential

The purpose of this project is to make available the Alexandria Circuit Court land records and related documents on the Internet. The following table shows the land records and indexes and their status with regard to conversion to a format accessible through the Internet.

Date of Records	Status
Land Records from 1970 - 1993	Conversion to Internet readable format complete.
Land Records from October 1993 - October 1999	Conversion to Internet readable format complete.
Land Records from October 1999 - present and future	Conversion to Internet readable format complete.
Indexes from 1970 - 1993	Conversion to Internet readable format complete.
Indexes from 1993 - present	Currently available on RMS.
Indexes from 1999 - present and future	Linked to images of actual recorded documents.

All the above records and indexes have been converted to a format compatible with web browser access with imaging. The project was completed during summer 2002. The records and indexes will be placed on a separate public access server isolated from the daily operating Records Management System (RMS). The City will provide links from the Clerk of Court page on the City's web site to access the land records data. In FY 2002, land records from 1970 through 1999 were converted to digital TIFF format, the format used by the State Supreme Court. The indexes have been converted. The next phase will be to link the documents to the indexes.

The Virginia State Legislature initiated a project to automate and create remote access to the Commonwealth's land records by funding through the Technology Trust Fund (TTF) (administered by the State Compensation Board and the Council on Information Management). The Clerk of Circuit Court is the official custodian of these records. For every land recording there is an additional $3.00 charge to fund this project. Funds in the TTF have been temporarily limited pending the outcome of other fiscal needs in the Commonwealth.

The initial phase in which the records were converted from CD and microfilm to a format accessible through the Internet and has been accomplished. The next phase, the linking of indexes to scanned images, will require additional temporary staff which will be dependent on the availability of the TTF funds. After these initial phases there will be an ongoing conversion and uploading of data plus any normal system maintenance.

This project is a part of the initiative to provide public access to Office of the Clerk of Court's public records. See page 70 for additional information regarding this initiative and the provision of access to records maintained in the Alexandria Justice Information System (AJIS).

The Clerk of Courts has contracted with the State Supreme Court to provide Internet access to these documents. This service is expected to be funded by the Clerk's technology surcharge of $3 for every document filed with his office. The next phase of the project will begin when TTF monies are released.

Project Benefit:

This project will make the land records of the City of Alexandria electronically available to other City agencies, title attorneys, realtors, historical societies and property owners of Alexandria. As paper records age, they become more fragile and handling hastens their deterioration. Also, as more of these records are put into digital format, access becomes limited to the number of PC's that can be accommodated in the space of the Clerk's Office record room. Remote access allows residents access to essential land records 24 hours a day, gives other City agencies immediate access to the official land records in their own offices, protects the original records from additional handling, and gives access to title attorneys and real estate personnel to more efficiently serve residents involved in real estate transactions in the City of Alexandria.

Change In Project From Prior Fiscal Years:

- There are no changes in this project from the prior fiscal year.

Document Management Systems

Systems Development (015-005)

	Prior Year Unallocated	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	Totals
MHMRSA Medical Records Management	16,500	0	0	0	0	0	0	16,500
Human Resources System	5,250	0	0	0	0	0	0	5,250
Document Management and Imaging Infrastructure	75,000	50,000	200,000	50,000	50,000	50,000	50,000	525,000
Finance Document Management System	124,980	0	0	0	0	0	0	124,980
Totals	**221,730**	**50,000**	**200,000**	**50,000**	**50,000**	**50,000**	**50,000**	**671,730**

MH/MR/SA Medical Records Management System

(015-015-1-3)   Priority: Very Desirable

In 1998, the Department of Mental Health, Mental Retardation and Substance Abuse purchased a client-server based comprehensive client database, assessment and treatment planning system (Anasazi). With the department serving approximately 4,500 individuals each year, Anasazi provides a comprehensive data management and billing system to handle all client and third party billing, including managed care, as well as department, City, State and Federal reporting requirements. Additionally, the Anasazi software offers a fully integrated automated client medical records system that provides for one clinical record per client that satisfies both managed care and national accreditation standards.

During FY 2004 the department's focus was on beginning the process of transitioning to the new Health Insurance Portability and Accountability Act[3] (HIPAA)-compliant version of Anasazi. Some key accomplishments were:

• Developing and implementing the security scheme

• Deploying Anasazi Central (Security Module)

• Upgrading all Windows 98 clients to Windows 2000

• Converting the database to DataFLEX (a precursor to migrating to MS/SQL)

During FY 2005, MHMRSA staff will work with the Anasazi software development team to explore the feasibility of making the product biometric aware and capable of storing scanned documents.

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[3] The Health Insurance Portability and Accountability Act (HIPAA) was passed by Congress in 1996 and is designed to provide protections to individuals who might suffer discrimination in health coverage based on pre-existing medical conditions or on a factor that relates to an individual's health. Data security and access controls are very important in maintaining HIPAA compliance.

Project Benefit:

The record system has eased State reporting requirements by providing 'one button' State reports, and helped ensure continued licensure and other regulatory compliance. The planned enhancements will help ensure compliance with the changes in Federal and State regulations.

Change In Project From Prior Fiscal Years:

• There are no changes in this project from the prior fiscal year.

Human Resources Systems (015-015-2A)   Priority: Desirable

This project provides for the development of applications that support the administration of the City's personnel policies and procedures. Initiatives for the coming fiscal years include:

• on going development of the City's applicant tracking program, to include the capability to scan applications and resumes directly into the application (FY 2005);

• completing the employee address book on CityNet (adding City mailbox numbers, room numbers and offsite mailing addresses - FY 2005);

• providing on-line access to training records, training class sign-up and the status of enrollment in those classes (FY 2006); and

• scanning all personnel records and placing them on microfiche or CD-ROM (FY 2006).

Some of these initiatives may be funded from the E-Government or Intranet projects.

Project Benefit:

This project will enhance staff productivity by: (a) providing more rapid responses for projects requiring employee information, (b) shifting query capability of pertinent personnel information to field operations to enhance day-to-day management, such as scheduling and monitoring of training and performance evaluation, and (c) providing supervisory access to personnel data while at the same time maintaining privacy of individual information as appropriate.

Change In Project From Prior Fiscal Years:

• There are no changes in this project from the prior fiscal year.

Document Management and Imaging Infrastructure
(015-015-21)   Priority: Very Desirable

A number of City departments and agencies expressed a need for electronic storage and retrieval of documents through a Document Management and Imaging System (see also the Finance Document Management System project, page 56). The implementation of a Document Management and Imaging System will improve customer service by providing easily retrievable and recoverable information, improvements to staff productivity by allowing faster retrieval of electronic documents (versus the current process of trying to locate hard copy documents), improved security, and improved file management over current methods utilized. The Document Management and Imaging System will not only provide a more efficient and reliable information filing system, but will also allow redefinition of some of the more cumbersome work processes in the City.

Project Benefit:

The document imaging project will provide convenient access to information and related services to residents, businesses and City staff, as well as promote data integration, improve security, and reduce paper storage requirements.

Following the issuance of an Request for Proposals (RFP) for this service, the City awarded the contract to Reams Computer Corporation in February 2003 to implement Document Imaging for the City. Phase I of the project is to be completed within one year, by Fall 2004.

Phase I of the project will address imaging needs in the Fire/Code Enforcement Division. Code Enforcement is responsible for maintaining large paper planning documents and permit applications. The project will provide for scanning incoming permit applications and plan documents to make them simultaneously accessible to other City agencies during the permit review process. This will enhance each agency's productivity by reducing the time required for the physical "routing" process between agencies, and will provide better quality customer services by enabling staff to quickly review and approve permit plans and applications, or to more quickly inform applicants why the plans cannot be approved as submitted.

Most of the documents processed within the Transportation and Environmental Services, and the Planning and Zoning Departments are of paper or paper-like media such as linen, mylar or blue prints. Some electronic information, in the form of AutoCad files, and e-mails and associated attachments will require processing as well. Such attachments may include electronic documents, electronic drawings, digital pictures or even video records. Some of the documents to be processed are very fragile. Most of the documents processed within the Police Department are of paper media, as well as some electronic information in the form of e-mails and

attachments, which will require processing as well. Such attachments may include electronic documents, digital pictures or even video records.

Change In Project From Prior Fiscal Years:

- There is no change in this project from the prior fiscal year.

Finance Document Management System (015-015-2-7)   Priority: Desirable

This project will support the Finance Department's responsibility for fielding and resolving calls from residents and businesses with regard to tax and fee issues. The primary requirement for this system is to provide ready access to electronically filed documents dealing with taxpayer filing forms, inquiries, letters and other financial documents.

The initial stages of this project will require establishing the requirements, defining the storage requirements and acquiring the software. Implementation will be staged to allow a controlled transition to each area requiring this application and to identify current document flows and scanning of existing files. As new financial systems are acquired, regard must be taken of their ability to either integrate or call up the on-line images. Due to the large volumes of historical documents in some areas, staff anticipates processing a limited amount of historic documents wherever possible so that we are able to "grow" into the application and minimize resources being expended.

At a later stage the system may be extended to track contacts, whether by mail, telephone or email, and provide the ability to readily reference these and schedule actions. Providing on-line access to an indexed database of document images based on Taxpayer ID, Tax/Financial System, Account Number and Document Class such as complaint, tax filing, registrations and other related documents is an important goal of this project. The key imaging tasks under this project are treasury cash receipts, personal property tax files, business license applications and supporting documentation, business tangible personal property applications and supporting documentation, restaurant meal sales tax filings and supporting documentation, transient lodging tax filings and supporting documentation, Personal Property Tax Relief applications and supporting documentation, Real Estate Tax Relief applications and supporting documentation, rent relief applications and supporting documentation, Federal bankruptcy applications and supporting documentation, delinquent collections notices (dunning letters, Notices of Intent to Issue a Warrant, tax liens, etc.) and supporting documentation, Federal Schedule C tax filings and Purchasing contracts, all of which currently require significant physical storage space to accommodate.

Project Benefit:

This project will enhance productivity and provide better quality service by making documents readily accessible to City staff, and reducing the time needed to respond to residents, Council and staff inquiries about related financial matters.
This project will also reduce the significant physical file space the Finance Department presently requires to store tax returns and correspondence from taxpayers. This project will enhance the productivity of Finance staff by reducing the time and effort needed to respond to resident inquiries and complaints by significantly reducing the time required to locate and research key documents. The project will permit a more timely and better quality service to residents by reducing the time to respond to inquiries and by ensuring that the accuracy of responses is improved.

Change In Project From Prior Fiscal Years:

- There are no changes in this project from the prior fiscal year.

Financial Systems

Systems Development (015-005)

	Prior Year Unallocated	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	Totals
Real Estate Assessment and Accounts Receivable System Replacement	300,000	0	500,000	0	0	0	0	800,000
OMB Systems	0	0	75,000	0	0	0	0	75,000
Payroll/Personnel System	350,000	425,000	325,000	0	0	0	0	1,100,000
Remote Time and Attendance	150,000	0	0	0	0	0	0	150,000
Financial Accounting and Asset Management System	100,000	60,000	160,000	60,000	60,000	60,000	500,000	1,000,000
Revenue Collection Mgt. System	0	35,000	0	0	0	0	0	35,000
Totals	**900,000**	**520,000**	**1,060,000**	**60,000**	**60,000**	**60,000**	**500,000**	**3,160,000**

Real Estate Assessment and Accounts Receivable System Replacement

(015-015-2-3)   Priority: Essential (CARAT)
                                                     Priority: Desirable (REAR)

In 1991 the City's Real Estate Assessment System (CARAT) was the first mainframe system migrated to a LAN-based system. In 1994 the City's mainframe Real Estate Accounts Receivable (REAR) system was also migrated from the mainframe to a LAN environment and, at the same time, was integrated with CARAT so that appropriate changes in one system would be reflected in the other. The migration and integration of CARAT and REAR, however, did not fundamentally change either the program structure or the database engine. This project plans to replace both systems to exploit a graphical user interface (GUI) in a Windows environment and to use the City standard for database engines. Redeveloping these systems in a standard database is critical to the future integration of a Geographic Information System (GIS) (page 65), Permit Processing (page 83), and other real property based systems. It is envisioned that the replacement system will be adaptable to web integration, as well as interface with other City systems. The CARAT system replacement was funded in FY 2004 and prior years. The REAR system replacement is planned for FY 2006 at a cost of $500,000.

This project when initiated is expected to take up to three years to implement to allow the Real Estate staff two full assessment cycles to ensure that the costing models employed in the new system are not materially different from the costing models in the current system. Accurate costing of properties is key to supporting accurate and uniform property assessments, upon which the quality of the City's assessment process is measured.

Project Benefit:

This project will enhance staff productivity through improved processing speed, more accurate and flexible data manipulation and more reliable system operation. New reporting tools will provide staff with the ability to be more responsive to requests for information.

Change In Project From Prior Fiscal Years:

- As the City moves closer to acquiring a suitable commercially available product for both the appraisal and City treasury accounts receivable functions, depending on the product and technology selected, it is anticipated that this project could cost significantly more than the original $300,000 estimate. Therefore, an additional $500,000 has been added to FY 2006 for the REAR system replacement.

OMB Systems (015-015-2-4)   Priority: Very Desirable

This project supports ongoing improvements and modifications in the City's budget systems. In 2000, the City replaced an over 15 year-old DOS-based budget preparation system with Performance Budgeting, a module from the City's General Ledger accounting system. Regular system upgrades from the vendor occur annually. The City's vendor is also expected to introduce a web-based version of the software in the next 12-24 months which the City anticipates implementing.   Funds in the amount of $75,000 are included in FY 2006 for this product.

Project Benefit:

This project improves productivity through the upgrade and maintenance of the City's budget preparation system, used by every City department, that simplifies departmental budget submissions. The system also provides improvements to the personnel services cost analysis system, reducing staff effort in analyzing personnel costs and improving the accuracy of the systems' products.

Operating Budget Impact:

The maintenance costs of the Performance Budget system is estimated to be $20,000 annually.

Change in Project from Prior Fiscal Years

- Funds are included in FY 2006 to acquire a web-based replacement product when this becomes available from the current Performance Budgeting contractor.

Payroll/Personnel System (015-015-2-5)   Priority: Essential

The City's payroll system is a 1984 mainframe system that does not adequately incorporate any human resources capabilities, such as application tracking, position control or benefits administration. The City needs a fully integrated, client-server or web-based system to better manage our human resources which are by far the City's largest expenditure.

The City currently contracts with Arlington County to use the County's mainframe computer to run the City's payroll system. Prior to the expiration of the Arlington County agreement, City staff and retained consultants will be evaluating all available options with respect to its payroll system, including replacement of the Arlington County mainframe service with another that would more satisfactorily meet the City's reliability and security needs.

To improve the capture of time and attendance, work began in FY 2001 to phase in an automated Remote Time and Attendance system (Kronos is the system purchased). It is anticipated that the phases of the implementation will continue through FY 2004. This system works in concert with the existing Payroll/Personnel system.

Project Benefit:

This project will enhance productivity through more effective, secure and reliable distribution of payroll and personnel data to staff, through the automation of processes that are currently manual (such as COBRA management, which allows certain former employees to buy temporary health insurance at group rates) and the implementation of position control to ensure that budgeted positions are appropriately requisitioned and filled.

Change In Project From Prior Fiscal Years:

• Monies for the Payroll/Personnel system have not been increased pending recommendations made following the system evaluation. Cost for a completely new system could exceed $1 million plus significantly increased annual operating and maintenance costs. Staff and consultants in the next year will be evaluating all options to find the most economic system that meets our needs and whose return-on-investment (ROI) can be justified.

Financial Accounting and Asset Management System
(015-015-2-8)   Priority: Very Desirable

This project, formerly known as the General Ledger Accounting System, provides for the maintenance and enhancement of the City' client-server general ledger accounting system and asset management application. The client-server system, which was placed in production in the fourth quarter of FY 1998, replaced the City's

15 year-old mainframe general ledger accounting system. The system, *Performance Accounting* from Tier Technologies, includes technology that provides departments and agencies with additional flexibility in managing, accessing and controlling financial information. *Performance Accounting* is one of several modules of Tier's Performance Series, which also includes budgeting, purchasing, asset management and grants accounting. The City currently utilizes the asset management and budgeting modules. The vendor has announced a change to a web-based platform, which is expected to be available in FY 2006.

Existing funds in this project will be utilized to develop an interface with the City's purchasing system.

Sometime after FY 2006, Finance staff anticipates beginning a review of the current accounting system in the context of available new technology and the City's other planned changes for human resource systems to determine whether a possible replacement recommendation in FY 2006 or 2007 is warranted.

Operating Budget Impact:

Annual maintenance for the general ledger accounting system, which includes the fixed asset module, is approximately $140,000 per year.

Change In Project From Prior Fiscal Years:

- This project has been extended, with a request of $500,000 in FY 2010 for a possible system replacement.

- An additional $100,000 is requested for the change to a web-based product by 2006.

Revenue Collection Management System (015-015-41)　　　Priority: Very Desirable

The Finance Department is seeking to increase delinquent tax revenue collections by implementing a commercial-off-the-shelf (COTS)-based integrated revenue collection system that would better assist staff managing the collection of delinquent accounts. This system, which would be similar to what private collection agencies use, would age the tax accounts receivable function, assign the appropriate collection staff, monitor the staff's collection efforts, and automatically generate delinquent notice letters. The Finance Department's Revenue Division is currently collecting receivables without an automated collection system. Most accounts are maintained manually. Some databases and spreadsheets, which lack full collection functionality, are also used. The Revenue Division does have a small database application to track audits, field activity and bankruptcies, but all lack an interface to other City financial information systems.

Operating Budget Impact:

Annual maintenance of this product is anticipated to cost approximately $22,500.

Project Benefit:

With the implementation of an integrated revenue collection system, the ability to target revenue across multiple tax systems would enhance the City's ability to collect delinquent accounts and to manage a taxpayer's delinquencies. A revenue collection management system would streamline and increase the efficiency of the delinquent tax collection process. The cost of this system is likely to be recouped by increased delivered tax collections within twelve months of its installation.

Change in Project From Prior Fiscal Years:

- This project is funded in the amount of $35,000 in FY 2005 for a requirements gathering analysis.

Geographic Information Systems
Systems Development (015-015)

	Prior Year Unallocated	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	Totals
GIS Development	252,600	0	150,000	150,000	150,000	150,000	75,000	927,600
Totals	**252,600**	**0**	**150,000**	**150,000**	**150,000**	**150,000**	**75,000**	**927,600**

GIS Development (015-015-3-3)   Priority: Very Desirable

Maintenance and growth of GIS are focused in two areas; data development and data distribution (hardware, software and Internet). These project areas are equally important to the success of Alexandria's enterprise GIS.

GIS Data / Layer Development and Maintenance

The capital request for layer development for FY 2004 thru FY 2009 is sufficient to complete the layer currently listed as priorities in the capital plan (Appendix A, page 117). The funding will allow new critical layers to continue to be added to the system over time and completed layers to be maintained. Layer priority is determined based on both need and development status of supporting data.

Layer development may be accomplished through the use of specialized contractors or in-house temporary staff. Different layers require different data gathering approaches. The cost of each layer will be directly related to the skill required, cost of equipment and the amount of data to be collected. Changes in technology over the past few years have made it possible to maintain much of the GIS data in new more cost effective ways. During FY 2005 GIS staff will be working with these new technologies to determine how much base map maintenance can now be done in-house. The goal will be to reach a balance between cost and efficiency in ensuring the continued timely maintenance of completed layers. These tools will ideally lead to more efficient map updates at a lower cost.

During FY 2004 much of the data development focus has been on maintaining the base layers and adding new overlays such as census-based population profiles and the City's Residential Parking Districts.

Hardware/Software/Training

The City currently maintains 17 GIS product licenses. These shared licenses support most of the City's user community.

During FY 2003 GIS shared the cost of updating workstation for the user community, however, during FY 2004 changes in technology prompted a change in direction. The GIS is now more efficiently and cost effectively distributed through an application server. This model ensures that end users who may only have a 20% need for GIS computing power will not have to make a 100% investment in their workstation. Workstation money has been pooled on the server side resulting in a reduction of overall GIS hardware costs. This also allows GIS to better scale hardware purchases to match software use as well as update software from a single location across the enterprise. Additionally, as a department's needs change they will not be holding an unused license or need to purchase more licenses for a short term project.

During FY 2004, GIS continued to increase the size and sophistication of the GIS user community through the distribution of hardware/software resources and training programs. The "Introduction to GIS Using ArcExplorer" class continues to be taught on a monthly basis. On average, 8-10 people per month take this class. During FY 2004, ArcView/ArcGIS training has been brought in-house and customized to reflect to City of Alexandria's GIS program. This class is now taught by GIS staff, and gives users more relevant instruction in a shorter amount of time.

Also during FY 2004 GIS core technical staff were sent to continuing advanced GIS training. These classes will continue to be necessary to keep up with the rapid evolution of GIS technoloy.

Hardware, software and training has been budgeted at $45,000 per year until FY 2009. This will pay for annual maintenance costs, additional licenses and user training. This should be extended until 2010 as these expenses will continue to be incurred on a yearly basis.

Internet Access

As the GIS is distributed and used more extensively throughout the City, it is envisioned that the most common way data will be accessed by staff and the public will be via the City's intranet (CityNet) and Internet. For FY 2005 through FY 2010, $35,000 per year is needed to provide for upgrades, enhancements and improvements, and is extended to 2010. The yearly maintenance cost of the GIS web software is directly proportional to the number of people who access the web site for maps. As use increases, it will be necessary to increase the number of processors on the server delivering the maps so that maps may be served quickly and efficiently. The software is licensed per-processor, therefore as the number of processors increases one must pay additional substantial maintenance fees.

During FY 2004 the first intranet mapping application, "Parcel Viewer," was developed and deployed on the City's web site. Parcel Viewer is a live interactive map which allows end users to view and query a parcel's assessment or address information. The user can drill down on the map until other planimetric features such

as curbs and building footprints appear. The user can also overlay other information such as Small Area Plans or Zoning. Additional enhancements will be made to this application during FY 2005 as well as the development of a live Internet map site for the public.

Operating Budget Impact:

The Department of Planning and Zoning is responsible for management of the GIS. A staff of three (a GIS Manager and two GIS Specialists) are currently responsible for implementing the Enterprise GIS function and supporting the GIS needs of Planning & Zoning. An ITS Database Administrator (DBA) provides technical oversight on the project and manages the database and network elements of the project. The FY 2005 operating budget for the Department of Planning and Zoning includes a new Senior Planning Technician for the GIS office.

Project Benefit:

Geographic Information Systems enhance productivity by providing a tie between seemingly disparate data. GIS enables numerous departments to share resources and reduce research, analysis and data collection burdens. It serves as a data warehouse for many of the City's critical layers such as roads, buildings and parcels. It creates a centralized responsibility for the maintenance and dissemination of these layers. GIS simultaneously updates map data City-wide and ensures all City agencies have access to identical spatial data. The City staff and the public are provided with quick access to consistent answers City wide. GIS enables staff to provide the City Council, various boards and commissions and the public with accurate maps which help synthesize significant amounts of information about geographic related issues such as zoning, demographics, routing and infrastructure.

During FY 2004 some of these benefits came in the form of specifically targeted GIS applications.   For example, GIS provided critical address data and technical assistance in the acquisition and operation of Public Safety's new Telephone Emergency Notification System (TENS).

Change In Project From Prior Fiscal Years:

• This project will forego funding in FY 2005, as this project has sufficient prior year resources available.

• In FY 2010, $75,000: $45,000 for hardware and software maintenance and upgrades; $30,000 for continued Internet development.

Public Safety Systems

Systems Development (015-015)

	Prior Year Unallocated	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	Totals
Public Safety Radio System Replacement								
Expenditure Totals	3,552,842	0	800,000	0	0	0	0	4,352,842
Less: Federal Byrne Grant	0	0	0	0	0	0	0	0
Net City Cost	3,552,842	0	800,000	0	0	0	0	4,352,842
AJIS Enhancements	0	150,000	150,000	150,000	150,000	150,000	150,000	900,000
Police/Fire Computer Aided Dispatch (CAD)/RMS Project	518,290	0	182,500	575,000	30,000	97,500	743,500	2,146,790
Interoperability Strategies for Public Safety								
Expenditure Totals	0	0	0	0	0	0	0	0
Less: Revenue Totals	0	0	0	0	0	0	0	0
Net City Cost	0	0	0	0	0	0	0	0
Virginia Commonwealth Attorney Information System	0	35,000	5,000	5,000	0	0	0	45,000
Emergency Operations Center								
Expenditure Totals	0	50,000	0	0	0	0	0	50,000
Less: Revenue Totals	0	(50,000)	0	0	0	0	0	(50,000)
Net City Cost	0	0	0	0	0	0	0	0
E-911 Planning	0	45,000	0	0	0	0	0	45,000
EMS Records Management System	0	100,000	0	0	0	0	0	100,000
Telephone Emergency Notification System	0	0	0	0	0	0	0	0
Tactical Computer System								
Expenditure Totals	0	188,062	191,824	140,396	0	0	0	520,282
Less: Revenue Totals	0	(188,062)	(191,824)	(140,396)	0	0	0	(520,282)
Net City Cost	0	0	0	0	0	0	0	0
Video Arraignment	0	38,500	0	0	0	0	0	38,500
FIRE On Board Computer System	0	0	0	0	0	0	0	0
Totals	4,071,132	368,500	1,137,500	730,000	180,000	247,500	893,500	7,628,132

Radio System Replacement (015-015-4-1)   Priority: Essential

This is a continuation of a project begun in FY 1997 to upgrade the City's 800 MHz
shared radio system. Funding in FY 1999 provided for the phased replacement of
obsolete mobile and portable radios utilized by City agencies, provided a backup
conventional radio system and increased the capacity of the City's shared primary
trunked radio system.

Prior to FY 2004, expenditures were largely confined to the replacement of older portable and mobile radios. In FY 2004, however, City funds were combined with $2.6 million in federal Byrne grant funds and the radio system infrastructure upgrade process was initiated. Activities to be completed in FY 2004 include continuation of a contract with CTA Communications Inc. for complete system upgrade specifications and other project implementation support, and the competitive negotiation for the upgrade services. Vendor selection and upgrade installation work is expected to begin in FY 2005. With a more detailed project plan and cost estimates, $800,000 has been added to this project funding for FY 2006.

Operating Budget Impact:

The annual cost of maintenance for the replaced system is estimated at $70,000.

Project Benefit:

The replacement radio system will enhance productivity and provide better quality service by:

- providing a better back-up system;

- reduce the number of busy signals officers receive when attempting to communicate with the emergency communications center or respective base stations;

- improve the clarity of transmissions through the use of modern technology; and

- facilitating mutual aid operations with Airport Authority Police and Fire, and Arlington and Fairfax counties, who are also implementing technologically compatible radio systems.

Change In Project From Prior Fiscal Years:

- $800,000 has been added to FY 2006 to fully fund this project (based on current estimates).

Alexandria Justice Information System (AJIS) Enhancements
(015-015-36)   Priority: Very Desirable

The Alexandria Justice Information System (AJIS), which completed 6 years of development and was implemented in FY 2004, will continue to require modifications based on changes to federal, state and local statutory requirements. This will include integrating existing systems currently in use by different AJIS user agencies. Monies for on-going system development in the amount of $150,000 have been added to fiscal

years 2005 through 2010 to accommodate these needs. In FY 2004, it is anticipated that this funding will be used for the development of the capability to support electronic signatures, and other enhancements.

Project Benefit:

On-going enhancements to the Alexandria Justice Information System will protect the City's investment by ensuring that the system will continue to grow to meet changing statutory and technological requirements.

Change In Project From Prior Fiscal Years:

- Continuation of funding in FY 2010 in the amount of $150,000 is included.

Police/Fire Computer Aided Dispatch (CAD)/Records Management System (RMS) Replacement (015-015-4-3)   Priority: Essential

This project provides for the phased replacement of the hardware for the City's mission-critical Police and Fire computer aided dispatch and records management systems. The replacements are:

- The CAD PC-based equipment will require replacement in FY 2006, FY 2008, and FY 2010. Specifically, there are 19 workstations (12 Police, 7 Fire) with PC equipment. This equipment should be replaced at least every two years as it is in operation 24 hours a day, seven days a week, is rarely turned off and serves critical public safety needs.

- The CAD gateway computers, which support the essential functions of the CAD, (2 Police, 2 Fire) and mapping server should be replaced every 3 years. These are a critical component of the CAD system.

- The replacement of the two IBM AS/400 mini-computers should occur every three years due to normal life cycle expectancy under a 24 x 7 operation.

- Monitors are replaced every 3 years.

A mapping application for both Police and Fire CAD systems was recently added. This project also includes funding for a pilot test of the Automatic Vehicle Locator (AVL) devices, currently projected for late FY 2004 (or early FY 2005) that provide the Police and Fire Departments with the ability to constantly monitor the location of vehicles to improve the management of field resources and to increase safety. It is anticipated that the Police and Fire will work closely in identifying the solution best suited to their needs. Devices for the entire fleet will be purchased after a successful pilot test.

The Records Management Systems, housed on the AS/400, provide the base for almost all data collected by Police and Fire staff.

The software vendor that the City uses has indicated their products are under development on new technology platforms and will be available within the next 24 months. The costs associated with these changes are yet to be determined but it is likely the City will want to migrate to these new platforms. CIP monies should continue to be allocated to support the periodic replacement and upgrade of the current hardware components, however budgeted money for future years may eventually be designated for another purpose in conjunction with the Police/Fire CAD systems. The Public Safety Systems Committee will review this annually and make recommendations as the need becomes more clear.

Change In Project From Prior Fiscal Years:

- In FY 2006, an increase of $1,500.

- In FY 2009, an increase of $1,500.

- In FY 2010, a request for $743,500.

Interoperability Strategies for Public Safety (Project AGILE)
(015-015-34)   Priority: Essential

The Alexandria Police Department has been in partnership with the National Institute of Justice's AGILE (Advanced Generation of Interoperability for Law Enforcement) Program as an operational test bed since March 1999. The project's focus is to research and improve issues regarding connectivity among data and radio systems of neighboring public safety agencies with overlapping or adjacent jurisdictions.

The Alexandria Police Department has continued to serve as the public safety communications interoperability host for most of the public safety agencies in the Washington metropolitan area. The Alexandria Police Department has achieved interoperability with up to 22 different public safety agencies, including new members: Montgomery County, MD Police Department, Prince William County Police Department and the United States' Department of State.

This project continues to serve as a national model for interoperability communications technology needs. Documentation regarding the technical evaluation, initial lessons learned and the Gateway Subsystem installation documentation can be found on the AGILE web site at www.agileprogram.org.

Project Benefit:

The project has focused its efforts towards outreach and technical support following September 11, 2001. The project manager, a police lieutenant from APD, has been tasked to travel along with radio engineers from the National Law Enforcement and Corrections Technology Center to provide assistance to agencies that are attempting to utilize the latest technology to address their own communications interoperability problems.

Change in Project From Prior Fiscal Years:

- This project is grant funded, with no match required from the City. Several contract extensions have been issued since the City's initial participation in this program.   Continuation of this project is contingent upon the availability of AGILE program funds and the direction of the AGILE program manager.

Tactical Computer System (015-015-24)   Priority: Essential

This network of mobile and desktop computers is designed to provide police officers electronic access to national, state and local law enforcement databases. At present there are 266 mobile computers deployed by the Alexandria Police Department (APD). This project plans to provide a total of 340 mobile computers; one for almost every police officer plus an additional 20 for parking enforcement officers (PEOs). These figures also include a projection of an increase in sworn strength of approximately 10 officers. The project is funded with a combination of City, federal, and seized asset monies. The APD anticipates acquisition of approximately 25 units each year from FY 2005 through FY 2009, until the goal of equipping all officers and parking enforcement officers is met. The Police Department is pursuing grant funding, which may accelerate the purchasing schedule. Since the emerging technology market causes fluctuation in computer prices, these figures are estimates, and may be adjusted during the coming fiscal years. As the computers reach three years of age they are being replaced due to rugged operating conditions and rapid changes in technology.

The wireless system used to connect the laptops to the APD is currently CDPD (Cellular Digital Packet Data). Because CDPD is being phased out by its provider, the Police Department will be transitioning to a newer, faster service called 1XRTT (One Time Radio Transmission Technology). This transition will occur as hardware is purchased and replaced through FY2004 - FY2006.

Project Benefit:

Officers can create reports while in the field, and send the completed reports to supervisors through a wireless network. In addition, it will allow, after proper staff

review, management, supervisors and officers immediate access to electronically forwarded reports. Dispatching, messaging and paging are examples of the Tactical Computer System (TCS) integrating with the existing computer dispatching and records system. Advanced Vehicle Locators (AVL) are being tested in FY 2004, and are expected to be fully implemented by FY 2005. AVL will allow each vehicle to be visible on an electronic map, providing increased safety for the officers and enhancing the deployment of resources.

The TCS is participating in the Capital Wireless Integrated Network (CapWIN), a region-wide data sharing initiative. This federally funded program has a goal of providing voice and data interoperability between the police and fire mobile units of the Washington D.C. metropolitan region.

Operating Budget Impact:

Operating budget impacts of approximately $500,000 for this project include costs for CDPD (and its replacement) wireless network maintenance and service, software maintenance for the field and host devises, parts and replacement reserves. This is included in the Police Department's FY 2005 operating budget.

There is no anticipated budget impact for participation in CapWIN.

Change In Project From Prior Fiscal Years:

- This project continues to rely upon seized asset monies and grants for new acquisitions.

Virginia Commonwealth Attorney Information System (VCAIS)
(Project 015-015-25)   Priority: Very Desirable

VCAIS is the Virginia Commonwealth's Attorneys' Information System. This system was designed and built by the IBM Global Services and Lotus Notes National Practice for criminal case management. The system is now centrally managed and primarily maintained by the Virginia Association of Commonwealth's Attorneys. The local servers copy data back to central servers on a regular scheduled basis in order to provide statewide uniformity for prosecutors in updating changes in the Virginia Code and to provide a standard mechanism for tracking statistical data statewide.

The system is a Lotus Notes based system, and presently needs support from the Lotus Notes Administrator or someone familiar with the operation of Lotus Notes in ITS. It is expected that continued enhancement of the system will require ongoing support, some of which may be application development support. The Commonwealth's Attorney's Office has also requested that a component of

continuing AJIS design and development be the development of an interface between AJIS (see page 70) and VCAIS.

Project Benefit:

The Alexandria Commonwealth's Attorney's Office uses this case management system for the following reasons:

- It is necessary to report required accurate statistical information on cases to a central statewide repository of information. This information is then used to determine compliance with staffing standards, and can affect the allocation of funds from the Compensation Board to support assistant prosecutor positions.

- The system provides a very useful and much needed means of communication and exchange of information amongst prosecutors statewide, regarding particular cases, particular defendants, and other matters about which prosecutors need to communicate effectively.

- The system provides prompt and much needed electronic access to changes in Virginia state statutes related to criminal law, as well as a uniform system for the production of indictments for felony cases in Circuit Court.

- The system provides extensive report generating capability which is invaluable for internal office management of workloads, case assignments, and case tracking.

Change In Project From Prior Fiscal Years:

- Funding in the amount of $35,000 is included for FY 2005, so that money reallocated from the project's prior year account (to provide funds for a more urgent purpose) can be replaced.

Emergency Operations Center Enhancements (015-015-33)   Priority: Essential

The project provides for a number of information technology enhancements to the City's Emergency Operations Center (EOC). These enhancements were recommended following a test of the EOC that was performed in November 2001 which identified a number of technical issues:

- To establish quick and effective computer communications and capabilities in the event of EOC activation, the EOC must maintain a group of pre-configured laptops computers available at all times at the Lee Center EOC. This will ensure that all responders have a laptop available and configured for use in a timely manner. Maintenance and configuration of these laptops will be a joint effort between ITS and the EOC coordinator.

- EOC network cabling must be revamped to provide faster and easier setup of network connections. Possible solutions include running cabling through ceiling area to allow cable drops to each laptop or running cabling to floor based jacks.

- The city-wide implementation of iNotes will allow any city Lotus Notes user to respond to the EOC and have email capabilities from any I-Net connected computer without the need to reinstall individual identification Lotus Notes files.

- Backup power sources for the EOC must provide power that is constant and conditioned so as not to damage electronic equipment. Power at the Network Operations Center at City Hall must be maintained for effective EOC operation. One or more UPS units will be needed.

- Analyze long-term needs and develop implementation plan.

Operating Budget Impacts:

The annual depreciation for 15 laptop computers (one for each position in the EOC, plus a spare) is estimated at $7,500 annually over their four-year life. The units are anticipated to be acquired with a four year warranty.

Project Benefit:

This project will help ensure that the EOC can be established and properly functioning in a minimal amount of time and with minimal opportunity for implementation error.

Change In Project From Prior Fiscal Years:

- Federal funding in the amount of $60,000 will be sought for FY 2005 to acquire an Emergency Reporting System application that would allow for seamless data gathering and reporting to the Federal Emergency Management Agency (FEMA). No City budgetary impact is anticipated.

E-911 Planning & Replacement (015-015-38)   Priority: Essential

The 911 emergency telephone system is an integral part of the communication and response network for the City's emergency services. On average, the Police and Fire communications center receives over 950 emergency and non-emergency calls per day. Approximately 10 percent of these are from wireless callers.

While the current system (which was last updated in FY 1996) appears reliable and sound, immediate planning for its replacement is required, due to several contributing factors. First, the current servicing contractor has indicated that

providing support for this system is becoming increasingly difficult because the technology currently in use (known as "1 A2") is no longer sold and installed and therefore replacement parts are increasingly hard to come by. The City makes approximately 4-5 calls for service on this application per month. While the calls for service are covered by the annual maintenance agreement, the cost of that contract is projected to rise from $48,000 per year to over $68,000 by FY 2006. Should a catastrophic failure occur requiring the replacement of major components of the existing system, there is doubt that this may be achievable, or may require a prolonged time.

In addition, rapid advances have occurred in the area of wireless 911 that must be accommodated. Federally mandated technology improvements are being deployed by the cellular industry to allow pinpointing of the exact location of calls to 911 that come from cellular telephones. The City's 911 system must be updated to take full advantage of this technological improvement. Funding to support an assessment of the current system may be partially provided through the State of Virginia's Wireless Services Fund, which collects an assessment from wireless telephone users to assist in supporting needed technological improvements. However, it is estimated that funds in addition to those received from the Wireless Services Fund will be required to adequately analyze and plan for the 911 system replacement. Monies in the amount of $45,000 have been included in FY 2005 to begin this initiative.

Operating Budget Impacts:

Annual operating costs, depending on the type of system acquired, are estimated at $15,000 to $30,000 annually.

Change in Project from Prior Fiscal Year:

• There is no change in this project from the prior fiscal year.

Emergency Medical Services Records Management System
(015-015-39)   Priority: Essential

The City uses a commercial system, Fireline, to gather data regarding emergency medical services responses to medical emergencies. The data in this system is used to provide a hard copy report to hospitals on the patient status when a patient is left at a hospital. The data is later transferred to the Fire/EMS Records Management System and then a data transfer is made to the city's ambulance billing agency for calculating of the appropriate ambulance billing charges.

The Fireline vendor has indicated that they will no longer be supporting this product within 1-2 years. The vendor had planned to replace the Fireline product with one which it had hoped to acquire through purchase of another company, or through

partnering with another software firm but all indications are that this not going to happen. The City is one of only 3 remaining customers of this vendor. This project requested $100,000 to be added in FY 2005 to enable the City to procure a replacement.

Operating Budget Impacts:

The operating budget impact is anticipated to be $15,000 per year, approximately 15 percent of the system's cost.

Project Benefit:

The 'Fireline' system provides the EMS staff the capability to gather accurate patient data and results in better information conveyed to hospitals on patient status. In addition, the information is used for ambulance billing charges, enabling more accurate and timely billing and follow up.

Change in Project from Prior Fiscal Years:

- There are no changes in the funding request at this time; City funds for this project are currently programmed in FY 2005.

Video Arraignment System Upgrade (015-015-44)   Priority: Very Desirable

The Office of the Sheriff seeks to upgrade the Video Arraignment System. Currently this system, acquired in 1992, is in place between the Courthouse and the Alexandria Detention Center. The current system is experiencing some video and audio quality problems due to normal wear and tear to the equipment. There is also a need for the Video Arraignment system to be able to connect to other sites, such as other Northern Virginia jurisdictions and most importantly to the Northern Virginia Juvenile Detention Center located in the Landmark area of Alexandria.

Project Benefit:

The primary benefit of this system is not having to take the security risk of transporting an inmate from the jail to the Courthouse for arraignment hearings. Having an upgraded system will result in improved audio and video communication between the users, and will also provide the option of connecting to more than one user site. In addition, this program is proposed for expansion to the Northern Virginia Juvenile Detention Center, which is also utilized by Arlington County. Providing this capability will significantly replace the transports required for the arraignment of juveniles at the facility. Sheriff staff are currently transporting an average of 75 juveniles per month to and from the Juvenile Detention Center; most of which are for arraignments.

Change in Project From Prior Fiscal Years:

- This is a new project in FY 2005.   Funds are included in the amount of $38,500 to fund the replacement of the City's video conferencing equipment, and to purchase an additional unit for use at the Northern Virginia Juvenile Detention Center. Costs for this unit will be shared by Arlington County, which also utilizes the Center to house its juvenile offenders.

FIRE On Board Computer System (015-015-45)   Priority: Desirable

At present the Alexandria Fire Department is in the process of deploying 40 mobile computers in all of the fire engines, medic, hazardous materials, technical rescue and command vehicles. The mobile computers will provide critical information such as dispatch information, building pre-plans, chemical data sheets for hazardous materials, street maps and other data. This initial deployment of 40 computers is funded by a Federal Homeland Security Grant (Byrne Grant), which was received by the City after September 11, 2001. This project plans to provide for a total of 60 mobile computers, however, one for each of the above apparatuses and other administrative and command vehicles. The AFD anticipates acquisition of approximately 5 units each year from FY 2006 through FY 2009, assuming grant funding sources for these acquisitions is secured. Since the emerging technology market causes fluctuation in computer pricing, figures are estimated, and may be adjusted during the coming fiscal years. As the computers reach three years of age they will be replaced due to rugged operating conditions and rapid changes in technology.

This network of mobile computers is designed to provide Fire/EMS personnel electronic access to local records management and the Computer Aided Dispatch (CAD) systems. Dispatching, messaging, mapping and paging are examples of the mobile computers integrating with the existing computer dispatching and records system. Automatic Vehicle Location (AVL) which is part of this project is currently being tested and will be implemented by FY2005. AVL will allow each vehicle to be visible on an electronic map located in the Communication Center, providing increased safety for the Fire/EMS personnel (by allowing for the ability to see exactly where each vehicle is located) and enhancing the deployment of resources throughout the city thus reducing response time to reach the emergency incident.

The Alexandria Fire Department is also participating in the Capital Wireless Integrated Network (CAPWin), a region-wide data sharing initiative. This federally funded program has a goal of providing data interoperability between the Fire/EMS, police and transportation units of the metropolitan Washington D.C. area.

Operating Budget Impact:

Operating budget impacts of approximately $100,000 for this project include costs for computer hardware, wireless network service, software maintenance for the field devices, parts and replacement reserves. Grant funding is being pursued as a way to fund this project along with City funding.

Change in Project from Prior Fiscal Year:

- This is a new project in FY 2005.

Recreation Systems

Systems Development (015-015)

	Prior Year Unallocated	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	Totals
Recreation Systems	75,000	0	0	0	0	0	0	75,000
Recreation Computer Laboratories	0	0	0	0	0	0	0	0
Totals	**75,000**	**0**	**0**	**0**	**0**	**0**	**0**	**75,000**

Recreation Systems (015-015-5-2)   Priority: Desirable

This project provides for development and installation of automated systems to support management of recreational services, including park maintenance. The Department of Recreation, Parks & Cultural Activities began addressing administrative and resident services issues through better application of technology in FY 2000. Several software application modules, including facility and activity reservations, point-of-sale management, and financial tracking have been in place at Chinquapin Park Recreation Center, which generates over $1 million in revenue annually. Park and facility maintenance automation modules were installed during FY 2001-2002 to improve time management and maintenance tracking for over 800 park acres. All full-time recreational facilities were connected to the City's I-Net in FY 2003. Currently, all Centers have installed the Pass Management System and are connected with the Department's main administrative office for real-time tracking of on-site customers. The City will introduce the telephone registration module that allows residents to register and pay for recreational activities electronically using a telephone in calendar year 2004.   The implementation plan for the system, including the integrated recreation software package and associated hardware upgrades, is expected to continue through FY 2005. The Park Maintenance modules have been installed and staff are in the process of finalizing the implementation and usage of the modules. The maintenance portion of the system is scheduled to be activated in calendar year 2004.

Operating Budget Impact:

The combined annual maintenance fee on these systems is $7,800. The annual maintenance fee includes telephone support during business hours and upgrades to the software at no additional charge.

Project Benefit:

This project will provide an improved quality of service through the identification of the usage of recreation centers and the types of services that are best suited to the residents who make use of those centers. Residents will be able to register and pay for recreation classes and activities electronically, either on the telephone or over the Internet. This integrated system improves work productivity by providing improved

information gathering and better coordination of work functions within the department.

Change in Project From Prior Fiscal Years:

• There is no change in this project from the prior fiscal year.

Recreation Computer Labs (015–015-5-3)   Priority: Desirable

The City currently operates 4 computer laboratories for the public at the recreation centers listed in the table below. The City continues to pursue grants and outside funding from private sources to expand the number and capabilities of these labs and to upgrade the equipment within existing labs.

	Site	Service	Status	Seats	Equipment Average Age
1	Charles Houston	No Internet	Operational	8	4 years old
2	Mount Vernon	Comcast Internet & I-Net	Operational	8	5 years old
3	Nannie Lee	Comcast Internet & I-Net	Operational	13	1 year old
4	William Ramsay	Comcast Internet & I-Net	Operational	11	3 years old

All sites are also provided with an I-Net connection which is for staff use only.

The public connect to the Internet through Comcast's Internet service at $247 a month per site. This fee covers all equipment and on site maintenance as well as Internet filtering software.

Operating Budget Impacts:

Operating and support costs for this project are absorbed in the Recreation Department's operating budget.

Project Benefit:

This project will improve the ability of those in the community who do not have easy access to, or who cannot afford computer technology, by assisting them in becoming computer literate. The Recreation Center computers also provide access to the City's children to essential computing services such as homework preparation.
Requests for updated operating systems on computers in lab have increased. Two Recreation Centers have stopped offering computer access to the public due to space limitations and cost for providing the service to the public.

Change In Project From Prior Fiscal Year:

• There is no change to this project from the prior fiscal year.

Other Systems

Systems Development (015-015)

	Prior Year Unallocated	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	Totals
Permit Processing	400,600	60,000	60,000	60,000	60,000	0	0	640,600
MHMRSA HIPAA Data Security Compliance	75,000	0	0	0	0	0	0	75,000
Intranet	80,000	0	25,000	0	0	0	0	105,000
TES Infrastructure Management and Maintenance System	100,000	0	0	0	0	0	0	100,000
Help Desk System	0	0	30,000	0	0	0	0	30,000
Homeless Management Information System								
Expenditure Totals	0	50,000	0	0	0	0	0	50,000
Revenue Totals	0	(50,000)	0	0	0	0	0	(50,000)
Net City Cost	0	0	0	0	0	0	0	0
Totals	**655,600**	**60,000**	**115,000**	**60,000**	**60,000**	**0**	**0**	**950,600**

Permit Processing (015-015-5-1)   Priority: Essential

This project provides for the continued development of the City's various building-related permit systems, the most important of which is Permit*Plan, which supports the administration of the City's building permit process. The permit process includes the administration of the fire prevention permits, Volume II complaint tracking (for complaints regarding existing structures), civil penalties ticket tracking, fire inspections performed by the Fire Department, and the residential rental program.

On-going system needs are identified below:

• The ability to accurately track preliminary drawings by all agencies.

• A 'master' file plan tracking system that will track all documentation, permits, comments, drawings, approvals, fees and refunds for a specific project must be developed.

• In addition, it is necessary to create cases that will provide for tracking the project during the concept and review.

Members of the City's Permitting Committee will be working with staff from the ITS Department to implement these changes to the current business process.

The Code Enforcement Bureau is the focus of the pilot project for the Document Management and Imaging project that began in calendar year 2003. The document imaging project for the permitting process includes plans to scan incoming permit applications to make them simultaneously accessible to other City agencies during

the permit review process. This will enhance each agency's productivity by reducing the time required for the physical routing process between agencies, and will provide better quality customer service by enabling staff to quickly review and approve permit plans and applications, or to more quickly inform applicants why the plans cannot be approved as submitted.

Future project plans will allow scanned information to also be made available electronically to the Fire Department Emergency Communications Center. This would allow the plans for each building in the City to be accessed by address and transferred to a field operations computer during emergencies to improve emergency response and/or firefighting tactics.

Internet access to the City's permitting system is now available on the City's web site. Site visitors may check the status of applied for permits and inspection status by project number, address or by permit number.

Operating Budget Impact:

Annual operating budget costs could be as much as $40,000 depending upon on the various improvements made to the Permitting system.

Project Benefit:

This project enhances productivity for City staff in Code Enforcement, Planning and Zoning, Transportation and Environmental Services, Health, Archaeology and Recreation by reducing the time to transmit permit requests among those who must review them. The system enables better customer service by enabling staff to answer inquiries about the status of permit applications quickly and accurately. In addition, the Integrated Voice Response (IVR) system allows contractors, residents and customers to use telephone automation to schedule inspections, get inspection results, have applications faxed and get general information on when permits are required, which frees up staff to do other tasks.

Change in Project From Prior Fiscal Years:

- There are no changes in this project from the prior fiscal year.

MHMRSA HIPAA Data Security (015-015-31)   Priority: Essential

The Health Insurance Portability Accountability Act of 1996 (HIPAA) was enacted by Congress and signed into law to regulate and standardize information exchanges and establish standards for the privacy and security of individually identifiable health insurance information. HIPAA will impact all functions, processes and systems that store, handle, or generate health information.

The standards for Privacy of Individually Identifiable Heath Information (the Privacy Rule) took effect on April 14, 2001. The Privacy Rule creates national standards to protect individuals' personal health information and give patients increased access to their medical records.

The Health Insurance Reform: Security Standards, Final Rule were adopted on February 20, 2003. Covered entities, which includes MHMRSA, must comply with the requirements of the final rule by April 21, 2005.   This final rule adopts standards for the security of electronic protected health information to be implemented by health plans, health care clearinghouses, and certain care providers.

The act is complex and the regulations by design leave the procedural implementation decisions open to interpretation. The scope of the project includes a self-assessment of current business functions and their impact on HIPAA regulations and compliance issues. MH/MR/SA staff are familiar with the Security Rules and the department has a voting member on the Virginia Community Services Boards' (VACSB) HIPAA Security Subcommittee. This subcommittee is developing a Risk Analysis Tool. MH/MR/SA will use this tool to assess risk and implement appropriate measurers to mitigate these risks.

Operating Budget Impacts:

These impacts will be determined as part of the analytic work that this project funds.

Project Benefit:

The successful completion of this project will result in the City being compliant in accordance to the HIPAA regulations.

Change In Project From Prior Fiscal Years:

- There are no changes in this project from the prior fiscal year.

Intranet (015-015-28)   Priority: Very Desirable

An intranet is the application of Internet technologies over an organization's internal network, allowing City employees to share data and more easily access services. The City of Alexandria's intranet is called CityNet. The information that is provided through an intranet is available only to an organization's employees and allows for the display of documents, submission of information using electronic forms and enhanced employee collaboration. An intranet resides on an organization's existing network and is usually protected from the outside world by a firewall.

This project will enable staff to continue developing the City's intranet infrastructure, content, and applications.   Some planned improvements include:

- Offering more options for employee self-service, i.e., offering access to employee-specific data;

- Permitting the submission of forms on-line (not just printing);

- As more web applications become available to employees, providing a user-specific web applications portal, providing links to only those applications to which the user has access.

Project Benefit:

An intranet allows the City government to:

- Distribute information quickly to all City government employees who have network connections or other authorized access. In FY 2003, staff completed the PC-Kiosk alternative for providing access to the City's intranet for staff whose jobs do not require them to have regular access to a computer.

- Take advantage of browser/client technology to reduce the cost and effort of making client/server applications available to appropriate City staff. (See the Computer Workstation Software Management project for additional information, page 105).

- Allow departments to electronically distribute information solely to their own staff without having to make this information available to all City staff.

- Allow City staff to have Internet access to specific work-related web sites, for example Virginia Retirement System or International City Managers' Association/Retirement, without the need to have full Internet access.

Change In Project From Prior Years:

- Monies in the amount of $25,000 are requested in FY 2006 for ongoing support and maintenance of our intranet servers and new for development.

TES Infrastructure Management and Maintenance System
(015-015-29)   Priority: Essential

Transportation and Environmental Services (T&ES) Operations (Maintenance and Solid Waste Divisions) uses semi-automated processes for work input and control of the City's municipal physical public works assets. These systems log work to be

accomplished and completed work, but no entry is made into a history file. If management wants to see the amount and type of work that has taken place over a period of time on a specific asset element (for example, the 8-inch sanitary sewer main connecting East Bellefonte Ave with the Commonwealth Connector), a manual records search has to be done.

The initial scope of this project would only involve automating the work flow associated with sewer system maintenance activities. The system to be implemented would have the capability to be expanded to assist in the infrastructure maintenance activities of other divisions in T&ES. A preferred system would include the following elements, and will be interfaced with the City's GIS system for mapping, and the City's accounting and budgetary systems for cost data.

The system will provide information on work management to include labor, material and equipment usage and costs for:

- Labor records
- Material inventory
- Work orders and projects
- Equipment used on projects
- Labor assigned to projects
- Work requests

Once populated with the correct information, it is envisioned that the system will provide information on asset management to include inventory quantities, condition and value of the following:

- Traffic signs and signals
- Storm and sanitary sewers
- Fire Hydrants
- Pavement
- Paving
- Curbs and Gutters
- Sidewalks
- Markings
- Street lights
- Solid waste receptacles
- Recycling drop-off centers

Operating Budget Impact:

The annual operating budget impact is estimated at approximately 15 percent of the current year software cost, or $11,250.

Project Benefit:

This project enhances productivity by eliminating unnecessary manual data entry, accumulating more accurate maintenance data and creating a database of infrastructure items and activities.

The residents and the City benefit because of the enhanced ability to respond to resident complaints about City infrastructure in a more timely and accurate fashion.

Change In Project From Prior Fiscal Years:

- A related project in the City's CIP is the Transportation and Environmental Services' "Sewer Rehabilitation and Pollution Abatement" project, which will provide the department with a comprehensive listing of the City's sewer infrastructure elements. In September of FY 2004, the Engineering & Design division of T&ES began the process of hiring a suitable contractor to create a location and condition inventory of all of the City's sewer infrastructure, which will include both sanitary and storm sewers. It is estimated that this field inventory will take 24 months to complete. The final product will be a GIS geodatabase that can be used for sewer modeling analysis as well as the Infrastructure Maintenance and Management system.

Help Desk System Replacement (015-015-32)   Priority: Essential

ITS is implementing a new web-based help desk system, which will allow users to enter service call information directly and enable them to track their calls. A web-based application will allow ITS staff and other technical staff to access the application from anywhere. Web-based systems do not require workstation client upgrades when new versions are released and will allow user access to the various knowledge bases.

The system will connect to the Lotus Notes (LN) Name and Address Book (NAB) which is currently considered a reliable database of City computer users. Interfacing with LN will eliminate the need for a duplicate database and the attendant errors that dual data entry introduces. Interfacing with LN will also allow for automatic responses to users when service calls have been assigned for service or have been closed.

Project Benefit:

As the number and type of service calls have increased and email has been increasingly used for reporting, staff has found the existing system does not meet our needs to handle the workflow of multiple assignments and we cannot automatically input a trouble call received via email. Change management, virus tracking, and office moves/renovations are not handled efficiently within the existing system.

Change In Project From Prior Fiscal Year

- An additional $30,000 has been added to this project in FY 2006 to provide funds to acquire a module to allow for PDA (personal digital assistant) access to the Help Desk system in the field. Once dispatched to an office on a call, Help Desk staff can check the system to see if there are other calls to be responded to near their current location prior to returning to the office, improving the efficiency in which Help Desk staff are deployed.

Homeless Management Information System (015-015-46)   Priority: Very Desired

This project will provide funds to purchase a software application which will be used to provide an unduplicated count of homeless persons served in the City.   The data will be provided to the U.S. Department of Housing and Urban Development (HUD), from which the City receives approximately $1 million annually in homeless services and group home funding**.** This funding is at risk if the City does not provide HUD with a reliable count of the number of homeless persons being served in the City by September 2004. The system the City would like to purchase, is also being used by Fairfax County for the same purpose.

Project Benefit:

This project provides funds for a system which will support reliable data gathering regarding homeless persons served in the City. This data is required by HUD in order for the City to remain eligible to continue to receive HUD funding of approximately $1 million per year.

Change in Project from Prior Fiscal Year:

- This is a new project for FY 2005. The project will cost approximately $50,000, which will be underwritten by Community Development Block Grant (CDBG) provided by the City.

Infrastructure Projects - Project 015-014

This CIP project category includes the continuing development of a high capacity information infrastructure to support the delivery of large quantities of data between distributed computing systems to the public, elected officials and staff.

Local Area Network (LAN) Infrastructure
Infrastructure Project (015-004)

	Prior Year Unallocated	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	Totals
LAN Backbone Capacity	50,000	50,000	50,000	50,000	50,000	50,000	50,000	350,000
Individual Building LAN Development	50,000	0	25,000	25,000	25,000	25,000	25,000	175,000
Upgrade Network Operating System	30,000	25,000	25,000	25,000	25,000	15,000	0	145,000
Upgrade Work Station Operating Systems	35,000	0	55,000	50,000	50,000	50,000	50,000	290,000
Network Infrastructure Hardware Upgrades/ Replacement	269,900	506,200	557,000	840,000	526,125	604,125	442,125	3,745,475
Storage Area Network	0	50,000	400,000	0	0	0	0	450,000
Totals	**434,900**	**631,200**	**1,112,000**	**990,000**	**676,125**	**744,125**	**567,125**	**5,155,475**

Increase the Capacity of the LAN Backbone (015-014-1-1)   Priority: Essential

A LAN backbone is the set of electronic components (electronic ethernet or ATM switches, routers, cables, concentrators and hubs) and software that connect multiple LAN servers within a single building to one another. In City Hall the LAN backbone also connects to the City's Wide Area Network (WAN), and includes high-speed WAN services the City's Institutional Network (I-Net), and low speed (56 kbps) dial-up WAN services.

A backbone's capacity is a key factor constraining data transmission speed. At present the backbone for a typical City building transmits data using ethernet communication protocols with 100 megabits of data per second. With the continued deployment of document storage and retrieval services, as well as the increased data traffic that is being introduced by the development of the Geographic Information System, the Alexandria Justice Information System, the Police and Fire Computer Aided Dispatch Systems and the other Public Safety systems and the large deployment of Lotus Notes email, the backbone capacity is needed in many City facilities.

In FY 2002, the City's first gigabit per second (gbps) backbone was placed in operation in City Hall. Also in FY 2002 staff began replacing the remaining 10 megabit shared ethernet hubs and concentrators with 100 megabit ethernet switches. The locations completed in FY 2002 were the City Computer Training Room located at 405 Cameron Street and Voter Registration located in Tavern Square on Royal Street. Replacement equipment has been procured and is currently being installed for the Police Department and Alexandria City Jail located in the Public Safety building that will provide 100 megabit switched ethernet to each desktop. Each of these locations, in addition to those completed in FY 2001, have been designed to take advantage of gigabit ethernet uplinks.

Internal building backbone services are currently provided as follows:

Location	Current Capacity		Location	Current Capacity
• City Hall	1 gbps		• Public Safety Center	100 mbps
• DHS at Mt. Vernon Avenue	1 gbps		• MHMRSA at 720 N. St. Asaph St.	1 gbps
• Courthouse	100 mbps		• Lee Center	100 mbps
• Public Libraries	100 mbps		• Fire Admin Station 204	100 mbps
• Tavern Square	1 gbps		• 405 Cameron Street	1 gbps

Project Benefit:

This project continues to fund improvements to staff productivity by increasing the speed with which data are delivered to users of the City's computer networks. By providing equipment upgrades to the network backbones, it is possible to provide better quality service to computer users by significantly reducing the time spent waiting for network responses for data. The upgrades also enable a much wider exchange of graphical images and other items such as maps and video that demand high-bandwidth.

Change In Project From Prior Fiscal Years:

• Funding for this project in the amount of $50,000 has been extended through FY 2010.

Individual Building LAN Development (015-014-1-2)   Priority: Very Desirable

The project includes installation of, or upgrades to, local area networks (LANs) located in many City government buildings. Monies will fund the acquisition of the LAN infrastructure components (ethernet switches, punch-down blocks, cabling, etc.) needed to complete the replacement of remote dial-up services by Office of Historic Alexandria (OHA) staff located at the Gadsby's Tavern and new facilities

such as the new MHMRSA Clubhouse and Health Department and the proposed site for relocation of Public Safety Building staff. These new components will be connected to the I-Net switches at each site, and additional LAN infrastructure equipment will be installed where necessary. These upgrades or new connections will provide at least 100Mbps switched ethernet connections. As the I-Net is deployed further and the specific needs of each building are clearly identified, costs will be updated accordingly.

Project Benefit:

LANs can provide better quality service for both staff and residents by improving access to data and by making new functions available that can improve the quality of customer service.

Change In Project From Prior Fiscal Years:

- The funding request for this project has been reduced by $25,000 in FY 2005 as the project has sufficient unspent prior year resources.

- Funding for this project has been extended to FY 2010 in the amount of $25,000.

Upgrade Network Operating System (015-014-1-3)   Priority: Essential

The City has completed the process of upgrading the all Novell servers and all Windows NT Servers to Microsoft Windows 2000 Advanced Server. The new version of server operating systems provides the ability to synchronize the directory and user entries on all WAN connected servers, simplifying the administration of these servers.

The newest version of the server operating systems also provides improved performance and improved integration of the Windows NT/Server database applications and provides a more hospitable environment for TCP/IP, which is the standard data communications protocol used on the Internet. In addition, this provides significant performance improvements on servers which contain multiple processors and in supporting very large drives (36 GB and above) stacked in disk arrays. Management of these servers is greatly simplified in newer versions, making it possible to provide a more reliable computing environment.

In FY 2004 the City acquired scripting software (which is used for remote desktop administration) to manage consistent Windows client configurations and simplify network management tasks and reduce the time necessary to perform those tasks. This software allows for centralization of drive mappings, search paths, time synchronization, desktop shortcuts, startup applications and the display of legal notices and pop-up messages.

This project is implemented in conjunction with the Network Infrastructure Hardware Upgrades/ Replacement project, see page 95.

Project Benefit:

This project enhances productivity by enabling ITS staff to reduce time spent managing and monitoring the City's network services due to older operating systems and allows City network engineers to concentrate on one operating system instead of managing multiple systems. Upgraded network operating systems provide better quality service by making network services operate more smoothly, with less disruption.

Change In Project From Prior Fiscal Years:

- There are no changes in this project from the prior fiscal year.

Upgrade Workstation Operating Systems (015-014-1-4)   Priority: Essential

This project provides funds to upgrade the operating system on City computer workstations with an appropriate version of Windows, and in limited cases UNIX or UNIX derivative such as Linux. This project also provides for additional workstation memory and larger capacity hard drives as necessary. These upgrades are required for the next generation of City email messaging, financial, public safety, GIS, human resource, maintenance management and other applications.

The City replaces desktops and workstations on a four year cycle and as these are replaced the operating system is automatically upgraded. However, this funding is for those computer workstations which are not in need of physical replacement, but still require the upgrade of the operating system to allow a new or upgraded application to run.   This project also provides for the labor costs of installing the new operating systems.

The ITS desktop operating system standard is Windows 2000, which has proven stability and cost effective deployment.   Staff are assessing Windows XP's cost against its benefit.

Project Benefit:

This project enhances productivity for City computer users who require functions that are available in new workstation operating system versions which enable them to run new applications. Users whose job requires the use of many different software packages, or packages that require significant computer resources, are better served by Windows 2000. Over time, as new hardware and software is introduced that makes use of features available in new operating systems, users whose job

productivity is improved and are able to deliver improved service, benefit from an operating system upgrade.

Change In Project From Prior Fiscal Years:

- The funding request for this project has been reduced by $70,000 in FY 2005 as the project has sufficient unspent prior year resources.

- Funding for this project has been extended through FY 2010 in the amount of $70,000.

Network Infrastructure Hardware Upgrades/Replacement
(015-014-1-5)   Priority: Essential

This project provides for the phased replacement of the hardware and software required to operate the City's computer network services in a safe and reliable manner. This project also provides funds for consulting services needed to properly plan and execute the scheduled network infrastructure upgrades.

The table in Appendix C, page 125, identifies the units that are scheduled to be replaced each year and, where consolidation of file servers is planned, when and how that consolidation is to occur.

Operating Budget Impact:

New and replacement servers are acquired with four year on-site maintenance warranty service, allowing annual maintenance costs for network equipment to be held to a minimum.

Project Benefit:

This request funds the purchase of hardware and software for the phased replacement of servers in accordance with the Appendix C schedule and the purchase of new servers needed to continue to provide the system reliability (redundancy) that is expected. It also includes the administration software and desktop licenses required to manage the network from these replaced servers.

By pairing (clustering) servers and introducing shared disk data storage devices, the City can improve availability of network services to industry standards (in excess of 99 percent up-time). With these new technologies, multiple servers store data on a set of highly-redundant, interchangeable disk storage devices which will reduce downtime, ease maintenance and support easier upgrades. The City will continue to consolidate by using large enterprise class servers whenever possible and retiring

the older, smaller servers by collapsing these into clusters of two, with each set of two sharing a set of LAN data storage devices.

This project enhances productivity by improving the speed with which data are accessed and processed. It provides better quality service through reduction in waiting time and in the ability to support appropriate new features and services.

Change In Project From Prior Fiscal Years:

• Funding has been included in FY 2010 for this project in the amount of $442,125.

Storage Area Network (015-014-14)   Priority: Essential

A Storage Area Network (SAN) is a high-speed network, similar to LANs, that connects disk subsystems directly to servers or clients. SAN's help to relieve network congestion and bypass distance limitations imposed by traditional Small Computer Storage Interface (SCSI) connections. They provide more rapid access to data and provide improved resiliency for backup and archiving of data.

With constant growth in the amount of data requiring storage, the demand for additional network storage capabilities continues to rise. A SAN is superior to the lower-cost storage alternative, Networked-Attached Storage (NAS), for several important reasons. NAS attaches to the network as a network device, so the NAS traffic competes with other LAN traffic. NAS also cannot support multiple servers easily. A SAN has its own network, so traffic is independent of the existing LAN. A SAN supports multiple servers with speed and reliability.

Staff have completed the development of specifications for a SAN solution, and have identified a suitable contract from another Virginia jurisdiction to utilize for this project. It is anticipated that by the beginning of FY 2005, acquisition of the SAN hardware and consulting services will be complete, and implementation will begin.

This project also provides funding for the replacement of the City's tape library, commonly known as the ADIC.   The ADIC is the cornerstone of our backup solution for the City network, and by FY 2005, will be nearing the end of its useful life.   The replacement will utilize newer technologies and allow for greater storage density per square foot of floor space. In addition the unit will provide for slot and drive expansion within its rack, allowing less expensive options for expanding the network online tape archive size and backup throughput.

Project Benefit:

SANs provide more secure storage of data and help protect against data loss through a variety of technologies such as disk units that can be exchanged without having to turn the SAN off (hot-swappable) and the ability to automatically switch to another server in the event of a server failure.

Change In Project From Prior Fiscal Year:

- An increase in funding of $350,000 has been added to this project in FY 2006; $150,000 of the total is to provide monies needed for the Storage Area Network, and $200,000 is for replacement of the City's automated tape library backup unit.

Wide Area Network (WAN) Infrastructure Development
Infrastructure Project (015-004)

	Prior Year Unallocated	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	Totals
Institutional Network Development								
Expenditure Totals	500,000	665,000	665,000	665,000	665,000	665,000	665,000	4,490,000
Less: Revenue Totals	(500,000)	(665,000)	(665,000)	(665,000)	(665,000)	(665,000)	(665,000)	(4,490,000)
Net City Cost	0	0	0	0	0	0	0	0
Telephony Integration	0	305,014	244,208	211,045	195,530	199,274	187,231	1,342,302
Security	50,000	25,000	25,000	25,000	25,000	25,000	25,000	200,000
Computer Work Station Software Management	83,000	0	0	0	0	0	0	83,000
Database Infrastructure	88,000	0	65,000	65,000	65,000	65,000	65000	413,000
Institutional Network Upgrades/2								
Expenditure Totals	0	665,000	665,000	665,000	665,000	665,000	0	3325000
Less: Revenue Totals	0	(665,000)	(665,000)	(665,000)	(665,000)	(665,000)	0	-3325000
Net City Cost	0	0	0	0	0	0	0	0
Totals	**221,000**	**330,014**	**334,208**	**301,045**	**285,530**	**289,274**	**277,231**	**2,038,302**

Institutional Network (I-Net) Development (015-014-2-1)   Priority: Essential

Funding for this project is provided by Comcast Cable Communications capital grant monies and sustains the continued activation of the fiber optic network called the City's Institutional Network (I-Net). In FY 2004 we anticipate adding more facilities and updating some of the data communication links between major City, School, and Library facilities to provide improved speed and service.

Additional sites to be addressed in FY 2005 and remarks regarding each site's requirements are included in the following table:

Priority	Facility or Site	Remarks
1	New Health Dept	4480 King St. Will include new MHMRSA Clubhouse also at this site.
2	Interim Public Safety Facility	For workers relocated from the Public Safety Building while building is being renovated. Location Eisenhower Ave.
3	Ft. Ward Museum	To be scheduled.
4	Ford Nature Center	This facility will be connected from William Ramsay Recreation Center.
5	Durant Center	This facility will be ready in late fall of 2003.
6	Visitor Center Public Safety	This facility has not started construction.
7	Gadsby's Tavern Museum	General Services to install a conduit in the fall of 2003

Operating Budget Impact:

I-Net maintenance costs vary depending on whether the site is a primary site (connected directly to the Comcast provided fiber) or a secondary site which is connected downstream from a primary site. This is because the downstream sites have less equipment to maintain. Assuming maintenance, repair and engineering, the cost estimate for a primary site is $3,500/yr. and for a secondary site is $2,500/yr.

The City is currently planning to replace older I-Net equipment in FY 2005. Per the terms of the City's franchise agreement, Comcast will expend, on a matching basis with the City, an estimated $665,000 (adjusted for inflation) to cover the cost of those upgrades. Details of this upgrade is included in the "I-Net Upgrades" project within this plan.

Project Benefit:

This project has enhanced productivity by providing direct high speed connectivity among City government offices and by allowing several City schools (ACPS) to have video services to connect classrooms. In the future this project will enable the City to deliver scalable data, audio and video communications to the ACPS, the libraries and the City government as those services are needed and warranted.

Change In Project From Prior Fiscal Years:

- There is no change in City funding for this project from the prior fiscal year.

Institutional Network (I-Net) Upgrades (015-014-6a)   Priority: Essential

This project provides funding for major upgrades to the I-Net. The I-Net is a private fiber optic network connects all City Government facilities, City Libraries and City Schools. It uses a ring technology and is designed in such a way as to provide unique rings for the Schools and for City Government. The libraries reside on City Government rings without any direct connectivity with other City government facilities.

Background:

Beginning with the Schools, connections to the I-Net commenced in 1998. By the end of FY 2004 the City will have 74 sites directly connected to the I-Net and another 19 sites that are noted as downstream (not directly connected but able to access) connections. The system currently uses Asynchronous Transfer Mode (ATM) as the mode for passing data at speeds up to 155Mps. There are 10 rings with various sites connected to each of these rings. Over the past 5 years the system has been expanded rapidly. The system is nearly complete and while there are still a few sites

from the original plan which have not been connected, for the most part new sites are added as the need presents itself.

Project Description:

Upgraded I-Net equipment allows for expanded capability and capacity. A significant portion of the ATM switching equipment comprising the I-Net backbone has been discontinued and will no longer be supported by the manufacturer. In consideration of the critical nature of many communications services supported by the I-Net, the City and ACPS plan to migrate to a flexible and scalable communications solution using Gigbit Ethernet, and corse wave division multiplexing (CWDM) widely accepted, standards-based technologies. The franchise agreement with Comcast provides for Comcast to expend up to $665,000 annually (adjusted for inflation) for system upgrades provided the City matches these funds. The City will match these funds using the budgeted technology capital funds related to assets connected to the I-Net system.

The essentials of the plan are to:

• Explore the possibility of redundant fiber to facilitate a parallel network infrastructure reducing the chance that damage to the Comcast head-end will result in a total network outage. This may also require adding redundant core equipment in certain locations.

• Increase the ability to continue citywide network connectivity in the event that our existing private fiber network is lost as the result of a major disaster. This could include alternate connections to a public ATM network from key City sites or other connection paths.

• Interconnect network resources with neighboring jurisdictions to provide alternate communication paths in the event of an emergency or disaster, as well as to lower on-going costs of interjurisdictional communications.

The planning and implementation of this project will take approximately one year. The City has recently issued a Request for Proposal (RFP) to upgrade the I-Net to gigabit ethernet technology.

Operating Budget Impact:

The impact on the operating budget is directly related to the cost of new equipment installed. The annual maintenance is typically 10-15% percent of the purchase price. Until the exact specifications are known we cannot estimate the operating budget impact. However, these impacts are generally not felt until the warranty expires which is usually one year after the equipment is installed. Any operating budget impact will be calculated for the appropriate year. At present, staff estimates annual

maintenance costs will be about $225,000, or approximately 20% reduction over current costs.

Project Benefit:

The I-Net has proven to be an essential and critical service for the Schools, the Library and City government. It also provides the alternate link for the 911 system and is the primary link between the communications center to Fire and Police for the Computer Aided Dispatch system. This project will increase the capability and reliability of the system while providing for future growth into the next decade.

Change In Project From Prior Fiscal Years:

- This project is funded through FY 2009 (the end of the current franchise agreement), at $665,000 a year (adjusted for inflation) from Comcast cable franchise revenues. The franchise agreement requires a match which will be provided via other City-funded information technology investments that are part of the I-Net system.

Telephony (015-014-8)   Priority: Very Desirable

This project includes the City-wide phased replacement of telephone switches for City and Library facilities. Alexandria City Public Schools (ACPS) telephone equipment will be funded through the ACPS operating budget and is not in the costs included in the IT Plan.

This project anticipates the future convergence of telephone and computer services, known as telephony. Some of the more visible examples of this convergence are:

- Internet telephony (called Voice Over IP- VoIP) in which the Internet is used as the telephone carrying and switching system;

- Internet appliances which combine telephone devices or paging devices with Internet access;

- Telephone call management systems which enable the computer workstation to also be used as the desktop telephone device.

While these technologies are not yet sufficiently mature for deployment in the City's environment, they are technologies that have the potential for enabling future productivity improvements. To appropriately plan for the implementation of various telecommunications services, the City will be hiring a contractor to develop a telecommunications plan in FY 2004.

The telephony project is being implemented in phases, anticipated as follows:

- The project provides for the ability of any City worker to dial any City facility with a four digit phone number through a single Centrex system. Presently many facilities do not use Centrex and require dialing an outside line and the full 10 digit phone number to access other City staff. This service has been completed.

- The City will upgrade a number of local PBX switches, while still making use of existing equipment which continues to be under maintenance and which still has a useful life. City staff will be studying the relevant issues before creating the PBX and Voice Mail (VM) equipment replacement schedule, which will include estimated costs. These costs are included in the FY 2005 - FY 2010 IT Plan.

- Paging services: a reliable paging system should be available to all City departments. Currently the City uses One/Way, Two/Way Metrocall pager devices, and Nextel built-in pager services. Public Safety and other departments use different paging methods and software to send text and numeric messages. Because the paging service is used mainly for Emergency Paging, the need for a reliable system that guarantees the delivery of messages anywhere, anytime and has the ability to validate/verify in a real time is the main requirement for the desired system. This project requires the acquisition of hardware, software, connectivity and contracting with paging/cellular service provider. In addition, coordination between all City departments must occur because the desired system would be centralized but used by many departments. The estimated cost of the paging system is $70,000 in FY 2004.

Operating Impact:

The operating and maintenance costs of telephone switches and voice mail units are included in the ITS budget and in various other departmental budgets.

Project Benefit:

This project will provide more effective and efficient telephone and related telecommunications services to the City government, library system and the Alexandria City Public Schools.

Change In Project From Prior Fiscal Years:

- An amount of $50,000 has been added for implementing telephone management improvements anticipated to be recommended by the City's telecommunications consultant, and $50,000 for a telecommunications bill management system.

- An amount of $187,000 has been added to this project in FY 2010 for the estimated cost of the necessary replacement switches and telephone handsets. Monies are also included for the phased replacement of this equipment in fiscal years 2005 - 2010. This phased replacement is calculated over a 10-year period, so the IT Plan only reflects 6 years of the cost of this equipment.

Security (015-014-3)   Priority: Essential

This project encompasses functions related to assuring the security of data held on devices such as computers, servers, networking equipment and telephone switching equipment. The goal of this project is to minimize the risk of unauthorized access to and unauthorized destruction of City data. The Security project provides resources to enhance protection of the City's network from unauthorized access through external connections such as connections to other jurisdictions and the Internet that are used by numerous City departments. Additionally this project provides funds to protect against unauthorized communications between devices located within the City's network.

Security project funds provide for the acquisition, replacement, configuration, and enhancement of computer network security devices and software known as firewalls, virtual private networks, intrusion detection systems, intrusion prevention systems, proxy servers, logging servers, authentication devices, and anti-virus software. These technologies control and monitor electronic access to the City's network. These tools ensure that data communications are authorized and protected from eavesdropping.

There are multiple parts to this project:

- It is anticipated that $48,000 of these funds will be used to install centrally managed software "client" firewalls on workstations, laptop computers, and mobile devices such as pen tablets.

- It is also anticipated that firewall appliances (hardware devices that run specialized firewall software), will be purchased to protect current and future inter-jurisdictional connections.

- As needed, this project include*s* the purchase of expert services to test the efficiency and effectiveness of these devices and their configuration*.*

Project Benefit:

This project enhances productivity and ensures quality service by eliminating potential system intrusions that may disrupt network operations, damage system and data files and otherwise compromise the integrity of the City's networked environment.

Change In Project From Prior Fiscal Years:

- There are no changes to this project's funding from the prior fiscal year.

Computer Workstation Software Management
(Project 015-014-15)   Priority: Very Desirable

The City has a number of application systems which employ client/server technology.
Client/server technology developed in the 1980's and early 1990's was designed so
that much of the work done by the application system is performed by the client and
only a little is performed by the server. These are called "fat" client systems because
they contain large computer programs which must be stored and run on the client's
computer. This requires that each computer workstation that uses an application
system of this type have a special piece of software loaded on it and also requires
that for each change in the release of the application, that someone go to the
workstation and install the special piece of software - a time consuming task.

Fat client services can also be delivered through a web browser using a class of
software called terminal servers. Citrix Metaframe and Microsoft Terminal Server are
the leading products in this class.   This technology will also help support the City's
three primary remote access initiatives:

- Mobile Workforce - Provide the ability for City field workers to efficiently access
  City applications and network resources from the field over very slow network
  connections.

- Application Deployment - Deploy complex and expensive applications with heavy
  client configuration and update requirements to occasional users of the software.

- Virtual Workforce - Provide the ability for City employees to work remotely from
  home or other locations. This supports the City's telecommunications initiatives
  by enabling staff to access City network and applications from home.

Project Benefit:

This project will lower software administration costs by reducing the number of
hours currently required to install software applications on individual PC's, and will
provide network and application access to staff who telecommute.

Change In Project From Prior Fiscal Years:

- There are no changes in this project from the prior fiscal year.

Database Infrastructure Development (015-014-13)   Priority: Very Desirable

The City currently posses a number of database software products, as well as some
older technology data access methods, that provide for the storage of key financial,
personnel, and public safety data. These operational data systems - General Ledger,

Purchasing, Payroll, Permitting, Real Estates and Tax systems - generally do a good job of capturing and storing detailed transactional data. But they were designed to deliver specific products and to answer specific questions, and are not always able to deliver information in an efficient and timely manor. These operational data contain unique data structures, different formats, are different from each other, with often only a single person within the City who understands their content. This project involves the codification of rules, processes, and data elements contained in these key operational data.   The project also consolidates this data into an information infrastructure that will support rapid analysis, simplified reporting and provide access and consistency to the data throughout the City.

Project Benefit:

This project enhances productivity by providing for a standard reference to all appropriate data elements that are in various City electronic databases. It provides for the consolidation and coordination of information (such as addresses) across numerous databases without regard for the nuances of each database's environment or construction. The project provides better quality service by improving the timeliness and accuracy of staff interaction with residents who request information or services through many of the City's applications, including Permitting, GIS, Real Estate Assessments, Recreation Department and other City applications. These efforts will enhance and support the City's E-Gov and Web-enabled application initiatives by providing analytical processing, special data querying tools, and most importantly by preparing data into consistent, meaningful, reliable, and reporting-ready formats. As this information infrastructure matures, it will support increased accountability within City agencies, performance management, trend analysis, streamlined data integration efforts, and it will position the City to take full advantage of evolving intranet, extranet, and Internet technologies.

Change In Project From Prior Fiscal Years:

- The funding request for this project has been reduced by $65,000 in FY 2005 as the project has sufficient unspent prior year resources.

- Funding for this project is extended through FY 2010 in the amount of $65,000.

Enterprise Services

Systems Development (015-016)

	Prior Year Unallocated	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	Totals
E-mail Services	0	250,000	175,000	289,000	175,000	94,000	90,000	1,073,000
Wireless Initiatives (Information Utility)	0	50,000	0	0	0	0	0	50,000
Totals	**0**	**300,000**	**175,000**	**289,000**	**175,000**	**94,000**	**90,000**	**1,123,000**

E-mail Systems Development (015-016-1)   Priority: Very Desirable

This project provide funds to improve and evolve the City's email services. IBM Lotus Notes/Domino is the City's software used to provide electronic mail (email) services to City employees. Domino, the server which supports Lotus Notes, provides a multiplatform foundation for collaboration and e-business.

Lotus Notes Release 5 is the current version of Lotus Notes/Domino in use in the City. Upgrading to the latest version - Release 6 (R6)) will allow for more centralized administration, failure protection, and browser accessible email. With R6, employees will have enhanced calendaring and scheduling and mail management functions. Archiving mail is easier to use in this version. A request of $100,000 in FY 2005 has been made to provide funds for automating the implementation of Lotus Notes version R6, which will significantly reduce the time and effort to implement this upgrade.

Required email message storage space has increased dramatically as employees continue their reliance on this critical business tool. To reduce the demand for space on the active Lotus Notes database, the City will provide email archiving for all Lotus Notes users beginning the second quarter of FY 2005. Archiving the email file frees up space and improves the performance of the active email database by storing documents in an archive database when they are old or not in use anymore. Employees will still be able to retrieve the archived messages, however. Funds in the amount of $70,000 have been requested in FY 2005 to implement email archiving. An additional $20,000 is requested in FY 2006 to finalize this initiative.

Blackberry devices provide wireless access to email at all times. The City currently has deployed 15 devices to City staff who have critical emergency response duties. As new services are introduced, the Blackberry Enterprise Server will be upgraded to the most recent version. City staff anticipate the number of Blackberry units deployed to City staff will increase, as new models of wireless productivity are implemented, and the expectation for staff availability for these services for emergency workers increases. An amount of $30,000 is included in FY 2005 to upgrade the enterprise server to handle additional devices. In fiscal years 2006-2010,

$10,000 is included in each year to further develop this capability, and to provide funds for the devices.

iNotes is browser accessible email that will provide the capability for key city emergency staff to access their City e-mail from any Internet connection. When the City implements iNotes, employees will be able to check their email from anywhere, any place, and at any time, with a browser accessible device helping to facilitate teleworking and emergency responsiveness. iNotes will improve employee productivity by providing easy access to work email accounts from handheld devices or from home. An amount of $60,000 is included in fiscal years 2006, 2007 and 2008 to implement iNotes.

Sametime is IBM's version of instant messaging. Sametime messaging lets you see who is on-line and lets you exchange real-time messages with one or many people at the same time. Sametime helps speed communication between staff. Using this product will allow City staff to see if others are available to collaborate and respond quickly through instant messaging. Funds in the amount of $100,000 are included in FY 2007 to implement this technology, with additional amounts of $20,000 in fiscal years 2008 - 2010 to continue rollout.

As the use of email and related services is expanded throughout the City, consulting services for administration and development will be required. Monies in the amount of $50,000 in fiscal years 2005 - 2007 are included to address this need.

Project Benefit:

This project provides funds to implement several important email related initiatives that will improve employee productivity by improving access to essential information, improve speed and reliability of services, and take advantage of emerging technologies.

Change in Project from Prior Fiscal Years:

- This is a new project for FY 2005. A request of $250,000 has been made in FY 2005 to begin this initiative.

Wireless Information Utility (015-016-2)   Priority: Desirable

This project provides funding for various wireless initiatives in the City, to benefit both the general public and City employees. Wireless technologies and applications are becoming commonplace across the United States and throughout the world. It is anticipated that by 2005 all new computing devices (computers, Personal Digital Assistants [PDA's], smart phones, etc.) will be built to accommodate wireless accessability. This technology trend is a direct response to the changing economic

landscape, where our culture is becoming an increasingly information-based society. Consequently, workers and consumers are demanding easy access to information - any time, any place, anywhere.

In the City, wireless initiatives benefit City employees by providing field access to City applications, email and other network services, to improve productivity. Monies for specific initiatives are included in different IT Plan projects, as shown in the table below. Monies for this project are for planning and implementing a wireless infrastructure to support on-going initiatives.

Wireless Initiatives in the FY 2005 - 2010 IT Plan

Project Name	Initiative	FY 2005 Funding Request
Permit Processing	Provide field access to the City's permitting application for Code Enforcement inspectors	$60,000
Tactical Computer System	Mobile computer access for City's Police officers	$0 in CIP (project funded through seized assets)
Email Services	Blackberry support, and iNotes implementation	$30,000
Computer Workstation Software Management	Support field access initiatives for City's inspectors with Citrix	$0 (funding from prior years sufficient)
Wireless Information Utility	Provide funds for needed infrastructure to support future wireless initiatives	$50,000

Operating Impact:

The operating budget impact for this project will include equipment depreciation costs. At this time, these amounts are unknown.

Project Benefit:

With the wireless infrastructure project, the City is positioning itself to establish a wireless framework to meet anticipated demands for these services.

Change In Project From Prior Fiscal Years:

- This is a new project in FY 2005. A request of $50,000 has been made in FY 2005 to begin this initiative.

Other Infrastructure

Systems Development (015-017)

	Prior Year Unallocated	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	Totals
Network Operations Center Upgrades	0	200,000	200,000	200,000	0	0	0	600,000
Disaster Recovery - Hot Site								
Expenditure Totals	0	850,000	0	0	0	0	0	850,000
Less: Revenue Totals	0	(800,000)	0	0	0	0	0	(800,000)
Net City Cost	0	50,000	0	0	0	0	0	50,000
Totals	**0**	**250,000**	**200,000**	**200,000**	**0**	**0**	**0**	**650,000**

Network Operations Center Upgrades (015-017-01)   Priority: Very Desirable

The City's existing Network Operations Center (NOC) is no longer able to efficiently handle the changing demands of providing IT services. There are recurring issues with power and power connections and space in the NOC. Consolidation of servers and services are occurring whenever possible. The existing Network Operations Center has reached its capacity for space and efficiency.

Currently, there are 70 servers located in the Network Operations Center, as not all City servers are located in City Hall. Larger departments maintain their own servers and services off site. The City desires to distribute network services out of City Hall to allow for redundancy, and for continued services in the event City Hall services are not available.

In addition, the City Hall workspace allotted for Network Engineers is no longer sufficient. There are currently nine network engineers located in the workspace. Network Operations staff share workstations within the NOC. The workspace adjacent to the NOC that was originally designated as a testing lab is now being used for storage.

Monies for this project in FY 2005 will fund a plan (with implementation planning as well) to determine the requirements of an updated Network Operations Center and efficient workspace for assigned staff, and will fund a level of improvements in FY 2006 and FY 2007.

Project Benefit:

To ensure continued efficiency of operations, the City's Network Operations Center (NOC) must not be filled to capacity from a space and energy needs perspective. The City's NOC has exceeded capacity, and this project will ensure equipment is properly housed and conditioned and that appropriate work space is made available to efficiently conduct ITS business and deliver IT services.

Change in Project from Prior Fiscal Years:

- This is a new project for FY 2005. A request of $200,000 has been made in FY 2005 to begin this initiative.

ITS Recovery Site (015-017-2)   Priority: Very Desirable

This project provides funds for the development of a City-managed ITS Recovery site. This initiative was recommended to the City in the context of the ITS department's recently completed Emergency Preparedness/Disaster Recovery planning project. By establishing a City-managed recovery site, the City will be better positioned to recover essential computing services within the stated recovery time objectives. This project proposes funding for initial costs of establishing a fully equipped backup site, and which will include amenities beyond necessary equipment to include security, fire protection, temperature regulation and telecommunications capabilities. Monies are also included in this project for 'quick ship' services with certain vendors to guarantee the provision of equipment within a stated period of time following a disaster event. By using 'quick ship' services, the City will not have to purchase and store expensive equipment such as high speed printers for disaster recovery purposes.

Project Benefit:

While hot site (a fully operational backup site) services are available commercially, the benefits of the combination internal hot site and quick ship over the commercial hot sites are as follows:

- Lower pre-disaster costs than a commercial hot site;

- No annual subscription fees for the internal hot site equipment;

- Faster recovery time allowed;

- Better proximity to the recovery site (hot site would be located in the City);

- Easier transition to an internal hot site (managed by the City);

- Easier and less costly to test;

- Guaranteed availability of the hot site (not the case with a commercial hot site).

Change in Project over Prior Fiscal Years:

- This is a new project in FY 2005. An estimate of $850,000 in City costs has been made in FY 2005 to fund this initiative. Of this amount, $800,000 will be sought from federal grant funding sources, with the remaining $50,000 requested in City funds.   This $850,000 cost covers the one-time start up costs for warehouse space buildout, and the purchase of required I-Net equipment and critical servers. The purchased equipment would support a 1-day recovery time objective for the most critical services supported by the ITS department, including I-Net connectivity, Lotus Notes and several critical applications.

- A single regional hot site solution for local governments in Northern Virginia is the current model under consideration. To date, eight local government CIO's have indicated interest in such a joint effort.

- The $50,000 funding in FY 2005 will be utilized to develop a more refined plan and new cost of estimate.

- The cost of a regional study and any subsequent hot site established as a result of such a study, would be equitably shared among the participating local governments.

Appendices

Appendix A
Geographic Information System Layer Development
As of January 2004

The following list shows the completed layers and the layer development priorities which were identified for inclusion in the GIS for the FY 2004 - FY 2009 IT Plan. This year, the layer list has been consolidated to reflect logical groupings of geographic data as opposed to the detailed structure of layers which have been listed in the past (i.e. lakes, streams-polygon, streams-centerline, shoreline now just listed as hydrography). As a result the list appears shorter but has actually just been reorganized.

- Completed layers are those that can be currently accessed by users on the GIS server. Priorities are those which have the highest priority for development during FY2005.

- As the GIS continues to mature production influences such as the development of supporting data, new priority City projects or the willingness of a department to assist in the development or use of a layer, will drive future layers priorities. Layer priorities are reviewed on an on-going basis.

Current Layers		
	Theme	**Layer**
1	Addresses	Address Points
2	Base map	Aerial Photos (1995, 1998, 2000, 2001)
3	Boundary	Alexandria City Limits
4	Recreation	Bike Trails
5	Buildings	Building Footprints (2D)
6	Buildings	Buildings Footprints (3D)
7	Census	Census Block Groups 1990
8	Census	Census Block Groups 2000
9	Census	Census Blocks 1990
10	Census	Census Blocks 2000
11	Census	Census Tracts 1990
12	Census	Census Tracts 2000
13	Planning	Central Business District
14	Code Enforcement	Code Enforcement Target Areas
15	Base Elevation	Contours (2ft Interval)
16	Human Services	Day Care Centers
17	Finance	Enterprise Zone
18	Misc	Fences & Walls
19	Fire	Fire Boxes

	Theme	Layer
21	Hydrography	Hydrography (Streams, Lakes, Ponds)
22	Planning	King Street Transit District
23	Transit	Metro (Rail Lines & Stops)
24	Buildings	Misc Structures (Decks, Patios, Canopies)
25	Planning	Old and Historic /Parker-Gray Districts
26	Misc	Parking Lot & Driveways
27	Recreation	Parks
28	Police	Police Beats
29	Police	Police Reporting Districts
30	Voter Registration	Polling Places
31	School	Public Schools
32	Transportation	Rail Roads
33	Recreation	Recreation Centers
34	Recreation	Recreational Amenities
35	Boundary	Regional Boundary
36	Transportation	Road Centerlines
37	Transportation	Road Edges
38	School	School Board Districts
39	Transportation	Sidewalk / Crosswalk
40	Planning	Small Area Plans
41	Base Elevation	Spot Elevations
42	Parcels	Tax Parcels
43	Traffic	Traffic Control Devices
44	Voter Registration	Virginia House Districts
45	Voter Registration	Virginia Senate Districts
46	Voter Registration	Voting Precincts
47	Planning	Zoning
48	Planning	Zoning Parking Districts

FY2005 Priority Layers		
	Theme	**Layer**
1	Historic Alexandria	1938 Aerial (raster)
2	Survey	Bench Marks
3	Transit	Bus Stop
4	Finance	Business Licenses
5	Fire	Fire Hydrants
6	ITS	INET Sites
7	Planning	Master Plans
8	Census	Population Profiles
9	Planning	Proffers
10	GIS Core	Public Facilities
11	Transportation	Residential Parking Districts
12	T&ES	Resource Protection Areas
13	Planning	Zoning Height District
14	Planning	Zoning Proffers

Appendix B
ITSC Related Subcommittees, Groups and Task Forces

City of Alexandria, Virginia
Information Technologies Steering Committee
Related Committees, Groups and Task Forces
January 2004
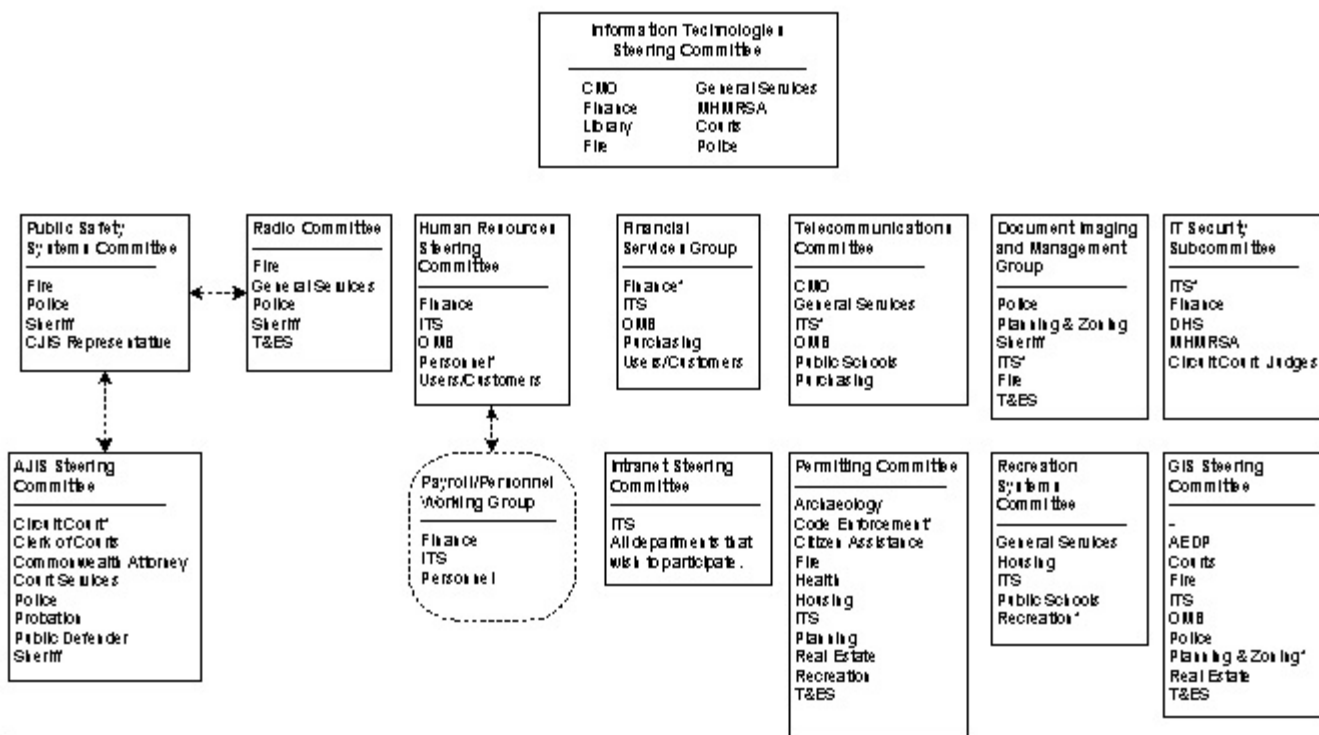
Alexandria Justice Information System (AJIS) Steering Committee

The AJIS Steering Committee sets policy and direction for the users of the CJIS and for the replacement for CJIS with the Alexandria Justice Information System (AJIS). In addition, it provides general oversight of AJIS; receives recommendations from the AJIS Coordinator and sets overall goals - periodically evaluates progress; meets biannually or when called by AJIS Steering Committee Chairperson; appoints subcommittees - delegates powers as needed; approves AJIS budget requests, makes recommendations to the City regarding AJIS budgetary and policy matters.

Document Imaging and Management Group

The purpose of the Document Imaging and Management Group is to provide guidance in implementing the various document imaging projects throughout the City. The group, established in FY 2004, will define project priorities among

departments requesting imaging projects, and will work to ensure that the best practices regarding data availability and security are followed.

Financial Services Group

The Financial Services Group is composed of staff from Finance, ITS, and OMB, as well as users from some of the larger City departments. The group is responsible for advising the ITSC on planning, budgetary and policymaking issues with respect to the City's financial systems. In addition, the group's meetings provide a forum for the discussion of technical oversight, policies, practices, education and inter-department coordination involved with the financial systems. The group is chaired by the Deputy Director of Finance/Comptroller.

GIS Steering Committee

The Geographic Information Systems Steering Committee (GISSC) is responsible for supporting and fostering successful GIS implementation throughout the City. The GISSC will develop and recommend plans, policies and budget initiatives to the ITSC and will work to ensure that individual department actions with respect to GIS are consistent with the City's overall goals for GIS. The GISSC is chaired by the ITS staff representative.

Human Resources Steering Committee

The Human Resources Steering Committee (HRISC) manages and supports decision making regarding the City's human resources systems (payroll, personnel and related systems). The committee develops plans, policies and budget initiatives for the City's HR systems, and makes recommendations on these issues to the ITSC. The HRISC also works to foster education and coordination inside and outside the City on human resources systems issues. The HRISC is comprised of representatives of the Personnel Services, Finance, OMB, ITS and several of the City's larger departments and agencies, and is chaired by the representative of the Personnel Services department.

Information Technology Security Subcommittee

The IT Security Subcommittee (ITSS) was formed at the request of the Information Technology Steering Committee (ITSC) and is intended to operate as a subcommittee of the ITSC to support information technology security decision making throughout the City. The ITSS is an advisory group to the ITSC. The goal of the ITSS is to foster IT security throughout the City government. To accomplish this goal, the ITSS will

develop plans, policies and budget initiatives. The ITSS will guide City-wide IT security policy development and foster education and coordination inside and outside of the City on security issues.

Intranet Steering Committee

The Intranet Steering Committee (ISC) recommends content, proposed standards and provides assistance with establishing priorities for the City's intranet services. Intranet services will eventually provide all City employees who have access to the City's computer network, with (as examples), access to appropriate personnel services information, GIS services, or other important departmental documentation. It can also provide priority information about important activities or events such as storm warnings, employee benefit deadlines, flu shot schedules, etc. The ISC serves as a forum for discussion and resolution of day-to-day operational issues for all City departments that make use of the City's intranet system. A representative of the ITS department serves as chair of this committee.

Public Safety Systems Committee

The Public Safety Systems Committee (PSSC) is an outgrowth of the CAD/RMS Committee. The goal of the PSSC is to work to coordinate and integrate public safety systems, and to serve as a forum for the sharing of plans, activities and expertise between Alexandria public safety agencies.

Radio Committee

The Radio Committee (RC) supports all City radio and wireless systems operations, enhancements and initiatives. The goal of the RC is to continue the successful operation and upgrade of the City's trunked radio system and to foster the smooth implementation of new radio and wireless technologies. Members include representatives of the Police and Fire departments, the Office of the Sheriff and T&ES (representing all other non-public safety City users).

Permitting Committee

The Permitting Committee was started in 1996 in preparation for upgrading the DOS-based Permit*Plan system to the newer, more robust client/server version. The focus of the committee's work was on implementation of the upgrade. The Committee's current focus is on (1) improving existing business processes through maximizing the functionality provided by Permit*Plan, (2) developing standards for business processes, (3) continuing to document and discuss system problems, and (4)

communicating and planning for new releases. The Permitting Committee is presently chaired by the Director of Code Enforcement.

Recreation Systems Committee

This Recreation Systems Committee (RSC) was formed in the spring of 1999 to guide the selection and implementation of a new recreation services system (RSS) for the City. The initial phases of the implementation of the RSS are now complete. The efforts of the RSC will focus on maximizing the benefits of the RSS through expanding its usage. The RSC is chaired by the Director, Recreation and Cultural Activities.

Telecommunications Committee

The Telecommunications Committee (TC) works to guide the acquisition of the City's telephone services and equipment. The role of the TC is to provide policy recommendations, promote new technologies and their integration with other City technologies, and to provide advice on appropriate inter-relationships of telephone systems technology with other communications systems and devices. Due to the pending expiration of both the City's and Alexandria City Public Schools' (ACPS) Centrex contracts in 2002, the work of the TSC in the next year will be focused on ensuring appropriate replacement services are selected and implemented. It is chaired by staff from the Information Technology Services Department.

Appendix C
File Server and Network Component Replacement
Server Replacement and Upgrade Table

See description of server types on page 129
KEY   H = Heavy Duty Server   S = Standard Server
        L = Light Server   T = Thin Server

Department/Function/Type of Server	Location	FY 2005	2006	2007	2008	2009	2010
1. Courts / File & Print Services	Courthouse				S		
2. DSS / File & Print Services. To be converted to DHSNT1 (item #3) which is a NT/server in FY 2004	Human Services Building	Consolidated with new server line item #3					
3. DHS / File & Print Services. To be created in FY 2004 when FS14 is consolidated	Human Services Building			S			
4. File & Print Services for City Hall	City Hall	Consolidated with new server line item #6					
5. Test Finance / Performance Accounting and Asset Management. This is a MS/SQL client server application and the application was upgraded in FY 2003 along with an upgrade of the MS/SQL version.	City Hall	S				S	
6. Production Finance / Payroll DBMS for automating time and attendance reporting to begin implementation in FY 2003. This is a MS/SQL application (Kronos). Also this server must work with a IIS web server (see #84)	City Hall		H				H
7. Production Permit Processing application. This is an MS/SQL server application and the application was upgraded in FY 2001 along with a conversion to MS/SQL. To provide citizen access this server is now linked to a voice response system and will be linked to the Internet in FY 2003.	City Hall			H			
8. Fire / Fire Computer Aided Dispatching (CAD) and backup for Police CAD. This server is the gateway to the Public Safety AS400s.	Fire Station 204	T				T	
9. General Services / Motor Equipment Division. This server runs the parts and maintenance application.	MED at South Quaker Lane Facility	L				L	
10. DHS Harmony application server.	Human Services Building				S		
11. DHS Intranet Server.	Human Services Building		S				S
12. Aging Information System.	Human Services Building		T				T
13. DHS JobLink Program / File & Print Services.	2026 Eisenhower Ave., Suite 140				S		
14. Sheriff / ACJS server.	Public Safety Building		S				S
15. ITS / Primary Domain Controller including DHCP and DNS functions. This server was placed into service in FY 2001.	City Hall						

	Department/Function/Type of Server	Location	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
16.	ITS / Secondary Backup Domain Controller including DHCP and DNS functions. This server was placed into service in FY 2001.	Fire Station 204	T				T	
17.	ITS / Backup Domain Controller including DHCP and DNS functions. This server was placed into service in FY 2001.	Fire Station 207	T				T	
18.	ITS / Backup Domain Controller.	Fire Station 206		T				T
19.	ITS / Backup Domain Controller	Print Shop		T				T
20.	ITS / Training. This is used for LN training.	City Hall			T			
21.	ITS / Technical Services. For Network Management suite which includes Openview (Network Node Manager, Manage X, Optivity, Foreview).	City Hall	S				S	
22.	ITS / Backup server controls the ADIC robotic tape device.	Print Shop	S				S	
23.	Notes Mail Primary.	City Hall		S				S
24.	Notes Applications Primary.	City Hall		S				S
25.	Domino Fax Server.	City Hall			L			
26.	Intranet Server.	City Hall		S				
27.	Internet Domino Web Server.	City Hall		S				
28.	City Hall Remote Access Server-1.	City Hall				T		
29.	City Hall Remote Access Server-2.	City Hall				T		
30.	Mail Scanning Server (TFS).	City Hall		T				
31.	MHMRSA Notes Mail Server.	MHMRSA 720 N. St. Asaph St.		S				
32.	ITS / Lotus Notes Hub server.	City Hall		S				S
33.	ITS / NetID Primary server. Implements the DHCP and DNS functions.	City Hall		L				L
34.	ITS / NetID Secondary server. Implements the DHCP and DNS functions.	City Hall		L				L
35.	ITS / Service-on-Demand. Foreview I-Net Management server.	City Hall		L				L
36.	ITS / Foundation. Foreview I-Net Management server.	City Hall		L				L
37.	MHMRSA Anasazi database server installed in FY 2002. Main transaction processing server for agency.	MHMRSA 720 N. St. Asaph St.	H				H	
38.	MHMRSA/NT 4. Medical Records Backup.	MHMRSA 720 N. St. Asaph St.		T				T
39.	MHMRSA/NT 4, Dell Optiplex 150. It stays on its own network of 4 computers. It is not connected to the City's network. It controls a methadone dispensing pump.	2355 Mill Rd.		T				T
40.	MHMRSA / Redundant Failover.	MHMRSA	H				H	

	Department/Function/Type of Server	Location	FY 2005	2006	2007	2008	2009	2010
41.	Police / File & Print Services.	PSB-Police			S			
42.	Police / Applications.	PSB-Police	S				S	
43.	Police Firewall.	PSB-Police			T			
44.	Police Windows 2000 message switch for mobile computers	PSB-Police	S				S	
45.	Police Web Server	PSB-Police		S				S
46.	Recreation File & Print Services and Rectrac for all Rec staff at the Lee Center.	City Hall			S			
47.	CJIS / Mugshot.	Courthouse			S			
48.	AJIS / Courthouse Applications which supports all Courthouse agencies and Probation & Parole, Public Defender, Women's Shelter, and Court Services Unit.	Courthouse			S			
49.	CJIS / HIDTA Drug Testing.	Courthouse			L			
50.	Library / Firewall.	Beatley Library			T			
51.	Finance / Treasury for the NT application.	City Hall		L				L
52.	T&ES database server applications. Clustered Traffic database server.	City Hall			S			
53.	T&ES database server applications. Clustered Traffic database server.	Colvin St						
54.	Primary City Internet (web) server	Radix, Oxon Hill, Md	S				S	
55.	High availability failover City Internet (web) server	Radix, Oxon Hill, Md						
56.	Secure web server for site management and secure processing	Radix, Oxon Hill, Md	T				T	
57.	List Service provider for internet	Radix, Oxon Hill, Md	T				T	
58.	Cluster monitor, statistics and mirror for web system	Radix, Oxon Hill, Md		L				L
59.	Animal Shelter server for database, file and print services.	Animal Shelter				S		
60.	Fire Admin server for file and print services	Station 204				S		
61.	BV-Control. Database server that is used for Active Directory Management	City Hall	S					
62.	DBA Test Server - GIS	City Hall			S			
63.	File and Print services for CMO, OMB and City Attorney	City Hall				S		
64.	E-Mail Archive Server	City Hall		S				S
65.	E-Mail Server for City Departments	City Hall		S				S
66.	E-Mail Gateway Server	City Hall	S					
67.	E-Mail Gateway Server	City Hall			S			

	Department/Function/Type of Server	Location	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
68.	Blackberry Server	City Hall	S					
69.	Kronos Web Server	City Hall	S					
70.	File and Print Services Server for DASH.	DASH		S				S
71.	Print Server for City Departments	City Hall		L				L
72.	Anti-Virus Server	City Hall	L					
73.	Anti-Virus Server	City Hall	L					
74.	Clustered Domino Web Mail Servers	City Hall				L		
75.	Clustered Domino Web Mail Server	City Hall				L		
76.	Clustered Domino Web Mail Server	City Hall				L		
77.	Clustered Domino Web Mail Server	City Hall				L		
78.	Clustered Spam Server	City Hall				L		
79.	Clustered Spam Server	City Hall				L		
80.	Citrix server.	City Hall				S		
81.	Citrix server	City Hall				S		
82.	Software Update Server	City Hall				L		
83.	Software Update Server. Also runs the ITS Project Management Software	City Hall				L		
84.	FTP Server	City Hall				L		
85.	GIS, ArcIMS, ERDAS server	City Hall				S		
86.	Applications Server for City Applications	City Hall				S		
	Totals		20	22	16	23	14	22

Server Specifications

	Thin Server	Light Duty	Standard Duty	Heavy Duty
NOS Supplied	None			
Number of Processors	1	1	2	4
Total Memory	1 GB RAM	1 GB RAM	2 GB RAM	4 GB RAM
Memory Config.	**Memory should always be ordered with the least number of large chips.**			
NIC (in addition to embedded)	**3Com Etherlink 10/100 Server NIC, Fiber Card or PCI ATM**			
TopTools Remote Card	Yes	Yes	Yes	Yes
A/C Adapter for Top Tools	Yes	Yes	Yes	Yes
Disk Drives	18.2GB/15,000 RPM	36.0GB/15,000 RPM	72.0GB/15,000 RPM	72.0GB/15,000 RPM
RAID Level	1	5	5	5
Dual Controllers	Embedded	Embedded	Embedded	Embedded
Total Drives	2	3	4-6	6+
External Storage	None	None	None	None
Backup	ADIC	ADIC	ADIC	
Monitor	None	None	None	None
Keyboard/Mouse	None	None	None	None
Service Level	**4 Hour Response (24X7)**			
Length of service contract	**3 years**			
Install Services	**None**			

Appendix D
State Information Systems Used By City Departments and Agencies

The City and the State exchange a variety of data. The first table identifies the kinds of State data services that are used by City departments and agencies, and the approximate number of connections for each system. The second table shows the approximate number of users within Finance, Human Services, Health, and Public Safety and Justice agencies.

	City Department or Agency	Estimated Number of City Staff Connections to State Data Services						
		Dept. of Corrections --- DEC Net	Dept. of Juvenile Justice — Case Mgmt	Dept. of Motor Vehicles ----- DMV	VITA* --- Virginia Voter Registration System	VITA — Compensation Board, SCC & Income Tax	VITA — State Internet Service	State DSS — Case Mgmt
1	Adult Probation and Parole	25						
2	Circuit Court					1		
3	Commonwealth Attorney							
4	Juvenile Court Services Unit		27					
5	Juvenile Court							
6	Finance			30		15		
7	Fire							
8	General District Court							
9	Health							
10	Human Services			1			1	1
11	MHMRSA Administration							
12	Registrar of Voters				10			
14	Police			1				
15	Sheriff			1		1		
	TOTAL	25	27	33	10	17	1	1
	Sub Total	**114**		Table is continued on the next page.				

* VITA is the State's Virginia Information Technologies Agency.

	City Department or Agency	State Health ---- Patient Mgmt, WIC, Medicaid	State Mental Health ---- POMS	State Police ---- Virginia Crime Information Network	State Police ---- Live Scan	State Police ---- Local Inmate Data System	Supreme Court ---- Case & Finance Mgmt
1	Adult Probation and Parole						
2	Circuit Court						
3	Commonwealth Attorney			1			
4	Juvenile Court Services Unit						8
5	Juvenile Court						27
6	Finance						
7	Fire						
8	General District Court						32
9	Health	110					
10	Human Services						
11	MHMRSA Administration						
12	Registrar of Voters						
14	Police			1	1		
15	Sheriff			2	1	1	
	TOTAL	110	0	4	2	1	67
	Sub Total	184					
	Total	298					

These are the State data services in which the City participates:

State Systems Used By the Finance Department

Acronym/Title	Owner	Direct Connect?	Use	Users	Avg No. Users
CARS Commonwealth Accounting and Reporting System	Virginia Department of Accounts	Yes	Initiate Personal Property Tax Reduction Act (PPTRA) requests	Finance Treaury	2
CompBoard	Virginia State Compensation Board	Yes	File and track compensation board budgets.	Finance Administration	3
DMV	Virginia Dept of Motor Vehicles	Yes	Verify information related to personal property tax.	Finance Revenue, Finance Treasury	30
SCC	Virginia State Corporation Commission	Yes	Verify filings of articles of incorporation.	Finance Revenue	5
STARS	Virginia Department of Taxation	Yes	Assist with State income tax questions. Verify State sales tax distributions and assure City tax compliance.	Finance Accounting Finance Revenue Finance Treasury	30

State Systems Used By the City's Department of Human Services

Acronym/Title	Owner	Direct Connect?	Use	Users	Avg No. Users
ADAPT	Virginia Dept of Social Services	Yes	Tanf/VIEW (Temporary Assistance Needy Families/Virginia Incentive Employment not Welfare) and Food Stamp Eligibility Determination	DHS Eligibility and Service related staff	125
DMV	Virginia Dept of Motor Vehicles	Yes	Eligibility verifications	DHS Eligibility and Service related staff	125
ESPAS	Virginia Dept of Social Services	Yes	Tracks employment service activity	DSS and JobLink stall	125
FSET Food Stamp Employment and Training	Virginia Dept of Social Services	Yes	Food Stamp Services	DHS Eligibility staff	4
LASER	Virginia Dept of Social Services	Yes	Financial Administrative Services	DHS Finance staff	5
LETS	Virginia Dept of Social Services	Yes	Personnel System	DHS Personnel staff	4

Acronym/Title	Owner	Direct Connect?	Use	Users	Avg No. Users
Medicaid	Virginia Dept of Medical Assistance	Yes	Enrollment of Medicaid Eligible	DHS Eligibility and Service related staff	125
OASIS	Virginia Dept of Social Services	Yes	Tracks services to clients	DHS Service and related staff	75
SVES State Verification Exchange System		Yes	Eligibility verifications	DHS Eligibility and Service related staff	125
VACIS	Virginia Dept of Social Services	Yes	Eligibility verifications	DHS Eligibility and Service related staff	125
VEC	Virginia Employment Commission	Yes	Eligibility and Wage verification	DHS Eligibility and Service related staff	125

State Systems Used By Health Services

Acronym/Title	Owner	Direct Connect?	Use	Users	Avg No. Users
CARS	Virginia Department of Mental Health, Mental Retardation and Substance Abuse Services	No	Report on number of clients serviced, demographics, amount of services provided and costs.	MHMRSA	5
Patient Management	Virginia Department of Health	Yes		Health	110
SCADS	Virginia Department of Mental Health, Mental Retardation and Substance Abuse Services	Yes	Extracts program admission and discharge information on Substance Abuse consumers.	MHMRSA	3
WIC Women, Infants and Children	Virginia Department of Health	Yes		Health	110

State Systems Used By Public Safety and the Justice System

Acronym/Title	Owner	Direct Connect?	Use	Users	Avg No. Users
Case Management	Department of Juvenile Justice	Yes	Case management for juvenile offenders.	Juvenile Court Services Unit	10-12

Acronym/Title	Owner	Direct Connect?	Use	Users	Avg No. Users
CIMS Client Information Management System	Department of Criminal Justice Services	Yes	Victim-Witness Program	Commonwealth Attorney	6
CMS State Case Management System	State Supreme Court	Yes	Circuit Court - Calculate interest on payments to court cases. General District Court - Look up dispositions and court dates on GDC cases.	Clerk of Circuit Court General District Court Commonwealth Attorney J&DR Court	2 14 7 9
DMV	Virginia Dept of Motor Vehicles	Yes		Police	300
FMS	State Supreme Court	Yes	Financial management. Used to receive and account for all fees and collections by the Clerk of the Circuit Court.	Clerk of Circuit Court J&DR Court General District Court	20 3 13
KEA	Department of Corrections	Yes	General Information from Dept of Corrections	Adult Probation and Parole	25
LIDS Local Inmate Data System	State Compensation Board	Yes	Track expenses for reimbursement from State as well as SSN and DOB research	Sheriff	12
LiveScan	State Police	Yes	Fingerprint identification	Police Sheriff	10 16
RMS Records Management System	State Supreme Court	No	Primary index for land records. Maintains an index of all Alexandria land records recorded after 10/20/1999.	Public Clerk of Circuit Court	Varied 5
State Compensation Board	Virginia Department of Information Technology	Yes	Accounting for personnel and office expenses as approved by the State.	Clerk of Circuit Court Sheriff	3 1
VCAIS	Commonwealth Attorney's Association	Yes	Case management	Commonwealth Attorney	5
VCIN Virginia Crime Information Network	State Police	Yes	Run criminal histories and driving records	Police Sheriff Commonwealth Atty.	250 29 1

State Systems Used By Other Departments and Agencies

Acronym/Title	Owner	Direct Connect?	Use	Users	Avg No. Users
Virginia Voter Registration System	Virginia Department of Information Technology	Yes	Registrar		10

Appendix E
Telework Centers in Virginia and Maryland

Bowie Telework Center
Bowie State University, Thurgood Marshall Library
14000 Jericho Park Road
Bowie, MD 20715

Calvert InTeleWork Center
110 S. Solomon's Island Road
Prince Frederick, MD 20678

Laurel Lakes Telecommuting Center
Laurel Lakes Corporate Center
13962 Baltimore Boulevard
Laurel, MD 20707

Fairfax Telecommuting Center
Fairfax County Government Center
Suite 466
12000 Government Center Parkway
Fairfax, VA 22035

Fairfax City
1st floor
4031 University Drive
Fairfax, VA 22030

Herndon
768 Center Street
Herndon, VA 22070

Loudoun County
Suite 103
100 Carpenter Street
Sterling, VA 20166

Spotsylvania County
4956 Southpoint Parkway
Fredericksburg, VA 22407

Fredericksburg Telecommuting Center
10799 Columbia Drive
Fredericksburg, VA 22408

Stafford Telework Center
Suite 111
2721 Jefferson Davis Highway
Stafford, VA 22554

Stafford County
Suite 201
24 Onville Road
Stafford, VA 22554

Woodbridge Telework Center
13546 Minnieville Road
Woodbridge, VA 22192
Phone: 703-878-8500, Fax: 878-8501

Manassas Telecommuting Center
Building 105
9500 Godwin Drive
Manassas, VA 22110
Phone: 703-367-3000, fax: 703-367-0126

Shenandoah Valley Telecommuting Center
13 North Loudoun Street
Winchester, VA 22601
Phone: 540-678-1909, fax 540-678-1939

Frederick Telework Center
Suite M
7340 Executive Way
Frederick, MD 21704
Phone: 301-698-2700, fax: 301-696-2848

Hagerstown Telework Center
Suite 200
14 North Potomac Street
Hagerstown, MD 21740
Phone: 301-745-5601, fax: 301-745-5700

Prince Frederick Telecenter
Prince Frederick Shopping Center
Intersection of Routes 4 & 231
Prince Frederick, MD 20678

San Souci Centers
Suite R
4433 Brookfield Corporate Drive
Chantilly, VA 20151
Phone: 703-222-6939, fax: 703-222-6938

Waldorf TeleWork Center
Smallwood Village Telecenter
128 Smallwood Village Shopping Center
Waldorf, MD 20602
Phone: 301-870-3008 x7628, fax: 301-934-7686

NetTech Center of Winchester
13 North Loudoun Street
Winchester, VA 22601
Phone: 540-678-1909 x101, fax: 540-678-1939